

AD-A135 439

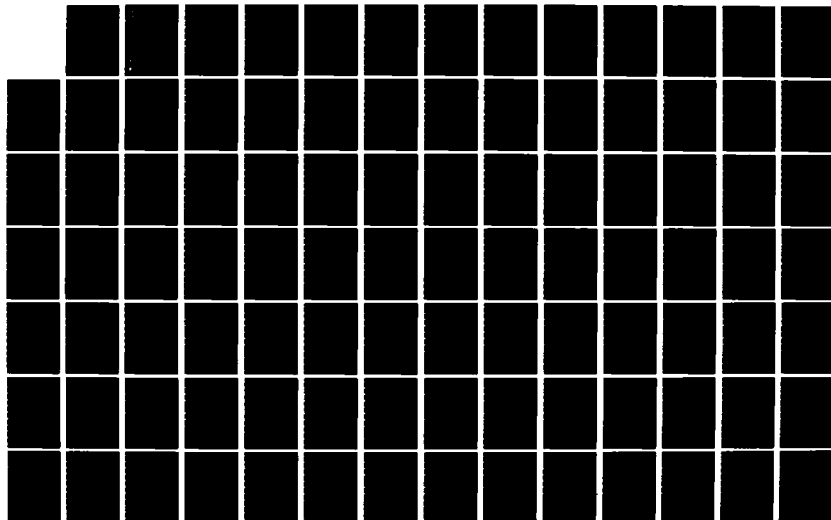
ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

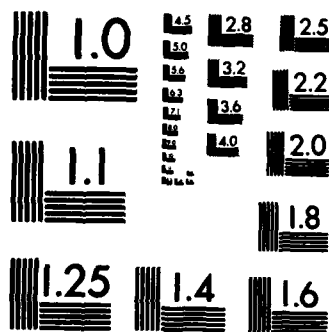
1/6

UNCLASSIFIED

F/G 5/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

**DISTRIBUTION STATEMENT A**

Approved for public release  
Distribution Unlimited

**DTIC**  
**ELECTE**

DEC 7 1983

**B**

83 12 06 104

## AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to ascertain the value and/or contribution of research accomplished by students or faculty of the Air Force Institute of Technology (ATC). It would be greatly appreciated if you would complete the following questionnaire and return it to:

AFIT/NR  
Wright-Patterson AFB OH 45433

RESEARCH TITLE: Arms Control Verification: "Bridge" Theories and The Politics of Expedience

AUTHOR: Robert Joseph DeSutter, Jr.

## RESEARCH ASSESSMENT QUESTIONS:

1. Did this research contribute to a current Air Force project?  
( ) a. YES ( ) b. NO
2. Do you believe this research topic is significant enough that it would have been researched (or contracted) by your organization or another agency if AFIT had not?  
( ) a. YES ( ) b. NO
3. The benefits of AFIT research can often be expressed by the equivalent value that your agency achieved/received by virtue of AFIT performing the research. Can you estimate what this research would have cost if it had been accomplished under contract or if it had been done in-house in terms of manpower and/or dollars?  
( ) a. MAN-YEARS \_\_\_\_\_ ( ) b. \$ \_\_\_\_\_
4. Often it is not possible to attach equivalent dollar values to research, although the results of the research may, in fact, be important. Whether or not you were able to establish an equivalent value for this research (3. above), what is your estimate of its significance?  
( ) a. HIGHLY SIGNIFICANT ( ) b. SIGNIFICANT ( ) c. SLIGHTLY SIGNIFICANT ( ) d. OF NO SIGNIFICANCE
5. AFIT welcomes any further comments you may have on the above questions, or any additional details concerning the current application, future potential, or other value of this research. Please use the bottom part of this questionnaire for your statement(s).

NAME \_\_\_\_\_ GRADE \_\_\_\_\_ POSITION \_\_\_\_\_

ORGANIZATION \_\_\_\_\_ LOCATION \_\_\_\_\_

STATEMENT(s):

UNCLASS

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER AFIT/CI/NR 83-56D	2. GOVT ACCESSION NO AD 4135 4/39	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Arms Control Verification: "Bridge" Theories and The Politics of Expediency		5. TYPE OF REPORT & PERIOD COVERED THESIS/DISSERTATION
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Robert Joseph DeSutter, Jr.		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS AFIT STUDENT AT: Univ of Southern California		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS AFIT/NR WPAFB OH 45433		12. REPORT DATE April 1983
		13. NUMBER OF PAGES 183
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASS
		15a. DECLASSIFICATION DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES APPROVED FOR PUBLIC RELEASE: IAW AFR 190-17 29 NOV 83 LYNN E. WOLAVER Dean for Research and Professional Development		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  ATTACHED		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASS

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

### Acknowledgements

I am grateful to innumerable friends, family members, and scholars who encouraged, guided, or simply endured me throughout the completion of this project. During the four year educational experience that is culminated by this dissertation, I was exposed to some of the finest minds and most provocative debate I have ever encountered. Such a rewarding expansion of one's intellectual horizons is obviously beyond the compensatory powers of mere gratitude, but there are many who share this achievement with me and to whom I am deeply indebted. In particular, I was privileged to be associated with Professor William R. Van Cleave during his involvement in the great national security debate that dominates the political agenda of our time. Professor Van Cleave's analytical contributions to that debate, as well as those counter arguments that informed and stimulated him, were our daily fare in the seminar rooms, lecture halls, and examination panels. His exacting standards of inquiry and expression, which are legendary at the University of Southern California,

are manifestations of an intellectual and academic integrity against which few scholars can measure themselves. As one of many beneficiaries of these standards, I was challenged, encouraged, scolded, and educated by them on a daily basis. To say thank you for such an experience would be entirely inadequate, yet I remain enormously grateful to Bill and I pride myself to be counted among his colleagues and friends.

Additionally, I wish to acknowledge my profound debt to Professor Harold W. Rood. Professor Rood's association with USC is but one of several "stops" that he frequents between Pomona and Palo Alto, but I was permitted more than my share of exposure to his socratic and demanding approach to learning. I deluded myself more than once into the belief that I had come to "know" Dr. Rood's mind on such occasions, but, like many others, came to realize that I was being challenged merely to know my own mind, and to assume responsibility for its content. Dr. Rood required me to recognize innumerable barriers to analysis that characterize everyday mental activity -- conceptual and grammatical conventions that become shortcuts to thinking -- and to comprehend their origins and functions or else factor them out of the issue at hand. No one who takes on this challenge from Professor Rood departs his presence without a sense of

bewilderment and humility. Alongside this intellectual "tearing down" process, however, Dr. Rood endows the recipients of his challenge with an enriched appreciation for earthy common sense and a recertification of their own values. This too represents a validation of one's most basic mental skills and personal character for which thanks are altogether inappropriate.

Other members of the USC faculty were enormously helpful, supportive, and challenging during my years of study there. Professor Ross N. Berkes took me through the annals of theory and counter-theory in the history of International Politics. Professor Ladd Holist introduced me to the epistemological barriers to, and enablers of, learning. Although that introduction was altogether too brief, it stimulated an interest and curiosity that informed and guided this project at several junctures, and that will challenge my education for the foreseeable future. Professor Harlan Hahn was a mentor and ally throughout my educational experiences at USC and served as a valuable "friend-in-court" whenever I needed him. Other professors who aided me toward the submission of this project are too numerable to mention but will long be recalled and appreciated.

I was also afforded educational opportunities that

supplement and often exceed those most commonly recognized. Out of an unusually tightly knit group of scholars with whom I have associated, I can name but a few, but the impact of their collective contributions to my education is incalculable. In this category I must include my colleagues Jeff Simon, Dick Schmitt, Jack Crouch, Al Koehler, Craig Etcheson, Bob Foelber, Carl Krehbeil, Dario Moreno, Bill Green, Jim Tritton, and David Hoppler. In the latter category I must also include my dear friend Luda Spilewsky, whose guidance enabled me to endure and prevail despite many seemingly insurmountable barriers to the completion of this degree.

On an entirely different level, I must acknowledge my many friends and colleagues from the United States Air Force Academy's Department of Political Science, whose support made this undertaking possible in the first place, and whose encouragement enabled me to complete this dissertation while committed to a full-time course load of teaching. Senior colleagues who enabled this valued educational experience for me include Colonel Ervin J. Rokke, Lt. Col. Curtis Cook, and Lt. Col. Michael A. Freney. Their support has taken forms too numerous to itemize and I value their friendships greatly. Other members of the Department were equally indispensable to my completion of this

dissertation. At each difficult juncture and each seemingly impenetrable research problem, I had the able counsel of good friends -- at times imposing myself on their good will to endure the writer's insecurities and intensities. In this category I must mention in particular Major Schuyler Foerster, who aided me in maintaining momentum when intellectual or personal inhibitions may otherwise have generated the dread "writer's burn-out" syndrome. Additionally, Captain James M. Keagle painstakingly proofread each page of my original manuscript. His hours of devoted critical analysis surfaced many common and uncommon errors that would have gone unnoticed with any less thorough assistance. In addition to the generosity and patience I received from Doctors Keagle and Foerster, the Department supported me with additional research time built-in to my workload. I was fortunate in this regard to be associated with Lt. Col. Robert P. Haffa Jr. and Lt. Col. William E. Berry Jr. -- themselves survivors of the Ph.D. gauntlet -- without whose personal and professional support I would still be writing and rewriting. Finally, the Academy provided me -- albeit at my personal expense -- with one of its finest civilian employees, Mrs. Elizabeth Sutton, who deciphered my handwriting sufficiently to produce each

draft of my dissertation. Her patience and endurance, along with her superb typing skills, enabled me to meet every deadline with a quality product.

One should only apologetically save for last the obviously immeasurable role played by one's family during such an undertaking. In my case apology is not necessary because my parents, siblings, and offspring are profoundly aware of their importance in providing inspiration, motivation, and criticism in this project and in most other things that matter to me. Although my debt to all of those mentioned (and many unmentioned) is great, all responsibility for the present text -- opinions, methods, and conclusions -- is mine alone. As an active duty Air Force Officer, I must explicitly disassociate all views, assemblages of information, conclusions, criticisms, and recommendations, from the United States Air Force Academy, the United States Air Force, the Department of Defense, and the United States Government.

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
<b>A1</b>	



## TABLE OF CONTENTS

ACKNOWLEDGMENTS . . . . .	ii
CHAPTER	Page
I. INTRODUCTION. . . . .	1
PART ONE	
The Chasm: A Dichotomy Between Open and Closed Societies . . . . .	14
II. THE CLOSED SOCIETY. . . . .	16
1. Conceptual Ambiguity . . . . .	21
2. Beyond Ambiguity . . . . .	35
3. Consequences (a case in point) . . . . .	57
III. THE OPEN SOCIETY . . . . .	90
1. Traditional Openness . . . . .	91
2. Nontraditional Openness. . . . .	105
3. Beyond Openness. . . . .	117
PART TWO	
The Bridge: Verification as a Technical Solution to a Political Chasm . . . . .	130
IV. FOOLPROOF COMPLIANCE CONTROLS: The Rise and Fall of On-Site Inspection. . . . .	138
1. Inspection in the Context of International Ownership of Nuclear Weapons. . . . .	142
2. The Soviet View ("Trust"). . . . .	151
3. Synthesizing Control and Trust: The Demise of "Foolproof" Compliance Standards . . . . .	162
V. THE THEORY IN TRANSITION: FROM CERTAINTY TO UNCERTAINTY IN COMPLIANCE POLICY. . . . .	183

1. The Scientists . . . . .	187
2. The Lawyers. . . . .	223
3. The Skeptics . . . . .	240
VI. THE SALT ERA: THE VICTORY OF THE TRUST ADVOCATES AND THE RISE OF NATIONAL TECHNICAL MEANS. . . . .	257
1. The Technology . . . . .	265
2. The Expectation. . . . .	293
3. The Institutionalization . . . . .	300
PART THREE	
Evaluation of Bridge Theories In Practice. . . . .	323
VII. SALT NONVIOLATIONS AND THE EVOLUTION OF A COMPLIANCE POLICY . . . . .	333
1. The Closed Society: Conceptual Ambiguity Continues. . . . .	337
Ambiguity Problems in SALT I . . . . .	338
Ambiguity Problems in SALT II. . . . .	353
2. The Closed Society: Deception Continues. . . . .	357
Deception in SALT I. . . . .	360
Deception in SALT II . . . . .	370
3. The Open Society: Self-Deception Continues. . . . .	376
Self Deception in SALT I . . . . .	379
Self Deception in SALT II. . . . .	391
VIII. THE ART AND SCIENCE OF COMPLIANCE MANAGEMENT . . . . .	408
1. Intelligence and Verification: New Criteria for National Security Crises and Responses . . . . .	411
2. The Verifiers: New Respondents to Enduring Questions . . . . .	434
3. Proof: An Epistemological Dilemma That Sustains the New Framework. . . . .	453
IX. CONCLUSION . . . . .	483
BIBLIOGRAPHY. . . . .	500

## CHAPTER I

### INTRODUCTION

By providing evidence that parties to an agreement are in fact fulfilling the obligations they have assumed, verification contributes to mutual trust among the parties, and helps create a political environment necessary for further progress in arms control.

--ACDA, 1976

Until now arms agreements have only limited what could be easily verified by spy satellites and other over-the-border methods. But now it is absolutely essential that we go beyond these, to cooperative measures that extend up to, although not necessarily including, on-site inspection.

--A Senior Administration Official, 1981

↙ Seldom do American political leaders discuss modern arms control without reference to the seemingly inseparable issue of compliance verification. Although 'verification' has a variety of potential meanings, it has long been regarded as the central determinant of good or bad security agreements from a Western perspective. Every American president during the postwar era has observed both the importance of nuclear arms control and the impossibility of its realization without adequate provisions for compliance → all

Com 14  
→ to p. 13  
verification. The failure of disarmament discussions to produce Soviet--American agreements in the 1950s was routinely attributed to disagreement over the appropriate measures of compliance verification.<sup>1</sup> By comparison, the culmination of several bilateral and multilateral arms control agreements since 1963 is commonly credited to the parallel evolution of "technical means" of verification over the same time period.<sup>2</sup>

Thus it was no accident that in order to centralize his authority within the arms control bureaucracy from 1969 to 1976, Henry Kissinger seized virtual monarchical authority over the NSC Verification Panel.<sup>3</sup> Kissinger's chairmanship of this body enabled him to hold sway not only over what was to be

---

<sup>1</sup>See for example Sir Michael Wright, Disarm and Verify (New York, Fredrick A. Praeger, 1964). As the British representative to UN disarmament discussions, Wright argues that verification arguments tended to scuttle progress at each critical juncture.

<sup>2</sup>See for example, U.S. Arms Control and Disarmament Agency, Verification, The Critical Element of Arms Control, (Washington, D.C.: Government Printing Office, ACDA Publication 85, March, 1976), p. 13, where it is argued that NTM now enable arms control; and p. 15, where it is argued that verification was the major inhibitor of arms control until the emergence of NTM.

<sup>3</sup>Duncan L. Clarke, Politics and Arms Control (New York: The Free Press, 1979), p. 76.

negotiable in the first place, but over the assessment of compliance after agreements were reached as well. Along these same lines, ACDA Director Eugene Rostow, a frequent critic of Kissinger's arms control efforts, has identified verification as, once again, the "paramount issue" in contemporary arms control discussions with the U.S.S.R.<sup>4</sup> Although all agreements that the U.S. has negotiated have been called "verifiable," proponents of even the most far-fetched proposals commonly reassure their supporters on the basis of their plan's verifiability. Senator Kennedy, for example, has suggested that even today a complete nuclear weapons freeze would be a low risk undertaking for the U.S. as long as the terms of such an agreement include "strict verification."<sup>5</sup>

It is altogether logical, of course, that the compliance question would be a crucial one in the context of nuclear arms control. National security, after all, is not a traditional topic of negotiation between political systems as diametrically opposed to

---

<sup>4</sup>Paul Mann, "Television Proposed to Verify Treaties," Aviation Week and Space Technology, Sep 21, 1981, p. 21.

<sup>5</sup>Edward M. Kennedy, "Can a Freeze Halt the Nuclear Arms Race? Yes: Only Such a Step can break the impasse with the Soviet Union." Los Angeles Times, March 21, 1982, Part IV p. 2.

each other as those of the U.S. and U.S.S.R. The arms control literature has dealt in depth with the variance between Russian and American negotiating objectives, with their conflicting meanings of peaceful coexistence and detente, and with their opposing impressions as to the political relevance of modern war. The two States are so far apart from each other on these matters that obstacles to security agreements would be predictable even if the license freely to measure one another's compliance were not in question. But from the Baruch proposal of 1946 to the current efforts to constrain both theater and intercontinental nuclear weapons, the demand for stringent proof of compliance has been a uniquely Western one. This may be true in large measure because of the essentially Western ideal that arms control can somehow lead to reduced international tensions in the first place. But if it is the West that ascribes such high priority to arms control, and if the compliance question is of no major concern to the Soviet Union, then why does verification assume the critical importance so often associated with it? In other words, how did verification come to be regarded as either the "enabler" or the "barrier" with respect to bilateral security negotiations of the postwar era? What have been the consequences of such policy

perspectives? And whose interests are served by their continuation?

Indeed the seemingly inseparable partnership between "verification," on the one hand, and "arms control," on the other, is difficult to explain on the basis of either of these concepts' meanings. "Verification" has traditionally represented the touchstone of epistemological debate rather than a central determinant in matters of national security. "To verify," as defined by Webster, is synonymous with "to confirm." To verify is to establish the "truth, accuracy, or reality" of some principle deemed worthy of inquiry. In this sense, verification involves the bringing to bear of evidence in support of a position one is striving to categorize as valid under certain conditions. Since "truth" is a highly elusive concept in itself, arguments as to what does or does not "verify" tend to rage within even the most established of scientific traditions. Some would argue, as did Francis Bacon, that verification is a purely normative concept without meaning in a logical context. Others, in the traditions of logical positivism, would confidently ascribe truth to induced propositions that follow the laws of inference -- particularly if they are satisfactorily verified as well. But national

security analysts seldom appear burdened by such ontological abstractions. Verification may well be a touchstone for debate in the arms control literature, but on the surface this would appear to be for reasons different from those for which the concept compels metaphysical reflection.

Furthermore, the association between arms control and verification is clearly not an altogether essential one because the history of negotiated security offers no parallel with the current high status that is given to verification. Despite extensive violations of the Treaty of Versailles -- itself hardly a negotiated instrument -- that agreement's failure to secure the peace was never attributed to problems of verification. Far from being the "paramount issue" in post-Versailles security settlements, verification warranted mention in neither the 1922 Washington agreements nor the 1930 London agreements.<sup>6</sup> Indeed many of the familiar problems with "counting rules" and strength comparisons were common during the interwar negotiations, but questions of compliance confirmation were not stumbling blocks during this era. Even the much maligned Yalta Agreements, the failure of which has been so costly to Eastern Europe, have generated no

---

<sup>6</sup>Wright, p. 36.

major controversies about verification.

As a major issue in security negotiations, verification is a phenomenon unique to the postwar world. Yet even to limit the time frame of the concept's status offers little by way of explaining its current centrality in security negotiations. Some have speculated that a whole new set of anxieties beset nations that experienced or witnessed punishing surprise attacks during World War II and that subsequent perceptions of the atom bomb's destructiveness further exacerbated these fears -- thereby stifling whatever confidence may previously have characterized the compliance question with regard to security agreements.<sup>7</sup> According to this argument, the efficiency with which great destructiveness could now be packaged also rendered the possibility of adversaries' noncompliance more threatening to States bound by negotiated constraints. It is true that the political benefits of violating agreed nuclear arms limitations could prove attractive to governments that feel threatened, aggressive, or both. Yet even this truism fails to indict compliance verification as the

---

<sup>7</sup>See for example Richard J. Barnet, "Inspection: Shadow and Substance," in Richard J. Barnet and Richard A. Falk, eds., Security in Disarmament (Princeton: Princeton University Press, 1965), p. 16.

culprit of arms control's dismal postwar record. The atom bomb's destructiveness, although great by comparison with other technology of its time, failed to cause Japan's surrender until its second use, and such weapons were entirely controllable by the measures of verification proposed in the UN by U.S. Representative Bernard Baruch in 1946.

The Baruch Plan, although utopian in the same sense that many subsequent disarmament schemes have been utopian, envisioned not bilateral but unilateral nuclear disarmament by the U.S. Since the Soviets allegedly lacked the technology necessary to build atomic weapons until three years later, noncompliance on their part would have been fairly detectable, and related Western anxieties therefore less relevant. American compliance, on the other hand, would have been scrutinized by the most stringent measures ever suggested in any postwar arms control proposal -- including international ownership of even peacefully intended nuclear materials and atomic know-how, as well as rigid provisions for international inspection of American facilities. Russian fear of American noncompliance fails to explain their flat rejection of the Baruch proposal, because the Soviets themselves suggested atomic prohibitions after achieving the

capability to produce their own such weapons.<sup>8</sup> The terms by which American compliance was to be ascertained under Soviet proposals were far less stringent than Baruch's provisions, but were nevertheless wholly acceptable to the U.S.S.R. The steady flow of proposals and counterproposals since 1945 offers ample evidence that, even in the age of nuclear weapons, the compliance question by itself need not inhibit carefully considered security agreements.<sup>9</sup>

In fact, the politics of arms control, up to and including the production of actual agreements, need encounter no major obstacles related to verification. Too many substantive agreements have been reached between the U.S. and U.S.S.R. to argue anymore that the principle of compliance monitoring is an insurmountable one. But this shifts the grounds of the discussion, because "compliance monitoring" and "compliance verification" are not interchangeable concepts. Although the formal ratification of agreements has been

---

<sup>8</sup>See for example Verification, The Critical Element of Arms Control, p. 9.

<sup>9</sup>The Baruch Plan: Statement by U.S. Representative Baruch to the UN Atomic Energy Commission, June 14, 1946, in Trevor N. Dupuy and Guy M. Hummerman, eds., A Documentary History of Arms Control and Disarmament (New York: R. R. Bowker Co., 1973), p. 302.

necessary for the distinction to become relevant, the verification question is quite moot until after agreements have been endorsed, at which time questions of signatories' compliance become operative. To say that monitoring is possible in principle therefore says nothing about whether verifying is possible in practice. To monitor is to observe; to verify is to confirm truth -- a highly judgmental undertaking. Verifying, in the context of negotiated security constraints, therefore requires not just a formal agreement but a compliance policy as well. The latter turns out to be as political as the former.

Yet even to restrict this discussion to the implementation phase of security agreements adds little, by itself, to the explanation of compliance verification's frequently insurmountable difficulty. If deep seated political conflicts can be set aside long enough to agree on mutual security constraints and monitoring provisions, then some system of cooperation must clearly be achievable during the post-agreement phase as well. Contrary to the easy logic that has brought the discussion to this point, however, neither monitoring provisions nor cooperation are matters of mutual concern during the implementation phase of a Soviet-American arms control agreement. Even to say

that "mutual compliance" is what must be verified is to employ diplomatic or academic euphemism. In practice, it is only the U.S. that requires "cooperation" either to monitor or to verify such agreements; in practice, it is normally only the U.S.S.R. whose compliance is in question. Euphemisms, commonly used to avoid public acknowledgement of political unpleasanties, all too often obscure the fundamental paradox: that the Soviet Union is not just a tightly closed and highly secretive political system, but one with a tradition of strategic and diplomatic deception as well.

In and of itself, this combination of attributes would make the Soviets less than ideal partners in a security agreement; the distinction between "cooperation" and "deception" is itself easily enough obscured. But the paradox is further exacerbated when the "other state" is the U.S., whose commercial tradition thrives on the capacity to anticipate international stability -- the principal purpose of arms control. The wide-open American political system would have great difficulty concealing its own noncompliance with a sacred treaty, and the American legal tradition requires solid proof of anyone else's noncompliance. The domestic tradition of due process is so cherished, in fact, that presumptions of

innocence and good faith are themselves carried over to international legal questions, especially when an agreement's integrity is perceived to be crucial. Moreover, there is a strain of idealism in the Anglo-American tradition according to which arms control's moral priority necessarily exceeds that of its alternatives.

Not only is the compliance problem therefore a unilateral rather than a mutual one, but it is the kind of problem that specifically cannot be resolved by piecemeal cooperation. The Soviets do not "cooperate" in the resolution of compliance problems, the obscurity of which is intentionally or fortuitously beneficial to them. Resultant security agreements can therefore only be understood as asymmetrically high risk ventures for the U.S., ventures that are undertaken regardless of this asymmetry for what to date has been the highly illusory goal of strategic stability through mutual vulnerability. This paper argues that the compliance verification dilemma, a uniquely American problem, creates a set of opportunities that are, in fact, among the principal reasons for which the Soviets pursue arms control in the first place.

After substantiating the assumptions that have accompanied these introductory remarks, a detailed

examination will be undertaken as to how "verification" came to be regarded as the solution to the compliance dilemma. This will involve a three step discussion.

can it → Part I ~~will~~ describes the political chasm separating a closed and traditionally deceptive Soviet system from an open American system that is politically and ethically committed to arms control. Part II ~~will~~ reviews various scientific, technical, and legal theories according to which monitoring mechanisms, dignified by treaty language, were said to "bridge" this political chasm. It will be shown in Part II that over time these theories have steadily strengthened their accommodation of compliance related uncertainty, and ~~were~~ finally institutionalized in the form of SALT I. → Part III ~~will~~ ~~then~~ discuss the consequences of these guidelines to policy and evaluate their effectiveness in implementing the various treaties and agreements they have licensed.

## PART ONE

### THE CHASM: A DICHOTOMY BETWEEN OPEN AND CLOSED SOCIETIES

They are to be told that their youth was a dream, and the education and training which they received from us, an appearance only; in reality during all that time they were being formed and fed in the womb of the earth, where they themselves . . . were manufactured; when they were completed, the earth, their mother, sent them up; and so their country, being their mother and also their nurse, they are bound to . . . defend her against attacks, and her citizens they are to regard as children of the earth and their own brothers . . . Such is the tale; is there any possibility of making our citizens believe in it? Not in the present generation, he replied; there is no way of accomplishing this; but their sons may be made to believe in the tale, and their sons' sons, and posterity after them.

#### The Republic, Book III

November seventh, it is clear  
Is the reddest day in all the year  
Through the window look ahead,  
Everything outside is red!

--Soviet Child's Nursery School Rhyme

A closed society is one in which the dissemination of information, whether official or unofficial and whether intended for domestic or foreign consumption, must serve the interests of the regime. An open society

is one in which ideas and values, whether they are in the interest of the state, society as a whole, or simply their individual authors, are allowed to proliferate, interact, compete, or synthesize in a pluralistic forum. Whether the U.S. is absolutely "open" and the U.S.S.R. absolutely "closed" according to these definitions, while debatable, is not particularly relevant to this discussion. These are concepts whose meanings are relative to other states at the time and place to which they refer. What is relevant for purposes of this discussion is that no state on earth today is more open than the U.S. or more closed than the U.S.S.R. It would be unimportant that the Soviet Union is as closed and secretive as it is, except that the U.S. is as free and open as it is. Even such a dichotomy as this would be irrelevant except that the Soviet Union and the United States, respectively, are the first and second most powerful states militarily today, that the two nations oppose one another politically, economically, and ideologically in a similarly dichotomous manner, and that the U.S. is nevertheless committed to a relationship with the Soviet Union in which security is subjected to negotiation.

## CHAPTER II

### THE CLOSED SOCIETY

The U.S.S.R., although nominally constituted as a federal republic, is politically organized on unitary grounds with a single party system and a totalitarian regime that governs for an indefinite tenure. Soviet society is orchestrated along lines that the West has traditionally characterized as a fascistic or police state model without traditionally understood freedoms of expression, petition, or assembly, and without due process of law in cases judged by the regime to be politically relevant. Not only is there no free press in the Soviet Union, for example, but an understanding of subtle journalistic technique is necessary to distinguish newspaper articles that dispense official positions from the rest, which have simply been approved for publication by the Party. Stringent controls also discipline all forms of culture, all literature (whether by domestic or foreign authors), all forms of public entertainment, and all religious expression, to that which informs the public in a manner deemed correct by the Party and the State, which

are one and the same. A state security organization whose loyalty is avowed solely to the Party is empowered to gather information about citizens and to enforce the will of the regime; the individual citizen is without recourse if his guilt is presumed or if his punishment fails to conform to the infraction of which he is accused. Furthermore emigration is strictly controlled by the State, and there is no legal tradition corresponding with the Western notion of "cruel and unusual" punishment. Serious political dissent, in fact, is commonly treated as insanity, treason, or both.

The power so directly to control the flow of information, the movement and interaction of citizens, the spiritual content of individuals' lives, and the living and working conditions of an entire population, is truly awesome by any measure, but it represents unthinkable social regimentation by Western standards. Indeed the power to dominate information so thoroughly is, by itself, the power to define reality in the totalitarian traditions of Plato and Hobbes. But it is important to emphasize that this power does not hold sway over the domestic population alone. As Alexander Solzhenitsyn has pointed out, for example:

until the most recent times the very  
existence of the Gulag Archipelago, its

inhuman cruelty, its scope, its duration, and the sheer volume of death it generated, were not acknowledged by Western scholarship...And to this day many American academics seriously refer to the ideals of the revolution when these 'ideals' manifested themselves from the very first in the murder of millions of people.<sup>1</sup>

Similarly, Lev Navrozov, who left the Soviet Union in 1972, describes the origins of a CIA "chart" he discovered while conducting research in an American library. The chart, portraying "growth in per capita food consumption" in the Soviet Union since 1965, had previously been a part of the CIA's classified estimates for the year 1975.

[The] CIA chart was based on Soviet propaganda pamphlets which we had laughed at in grade school and then never looked at again [They are available in English at the Soviet bookstore in Washington for 50 cents apiece]. According to these pamphlets, Soviet hens lay a certain percentage more eggs each year -- let us say, 7.8 per cent -- than they laid the year before, but with one biological peculiarity. The annual 7.8 per cent increase in egg laying begins only with the advent to power of the current rulers. Under the previous rulers, it subsequently turns out, the hens of Russia had hardly laid any eggs at all.<sup>2</sup>

In both Solzhenitsyn's characteristically

---

<sup>1</sup>Aleksander Solzhenitsyn, "Misperceptions About Russia Are a Threat to America," Foreign Affairs, 58 (Spring, 1980), pp. 799-800.

<sup>2</sup>Lev Navrozov, "What the CIA Knows About Russia," Commentary, (Sep, 1978), p. 52.

wrenching example of Soviet disregard for human dignity, and Navrozov's characteristically humorous example of nonsensical data manipulation, we see the effectiveness of external information control by a closed society. Obviously neither case would have been relevant had Western analysts been less gullible, but neither would their reality have been altered by more accurate Western assessments. Such is not the case, however, when the subject matter of Western analysis is also the basis for threat assessment or the data upon which arms negotiations are to be based. Thus Navrozov continues from his nonsensical example to a more pernicious one:

It was now clear to me how the CIA had come to the conclusion that the proportion of 'Soviet defense spending' might be as low as that of American defense spending. According to Soviet propaganda, it is the laying of eggs and other such annually growing peaceful endeavors, rather than the production of weapons, that fills the Soviet economy to overflowing.<sup>3</sup>

Navrozov's concern about Soviet efforts to manipulate Western images of the Soviet threat is shared and supported by Amrom Katz. For the Soviet military arsenal to serve any political purpose whatsoever, says Katz, a certain amount of "disclosure" is essential. According to Katz, Moscow's annual "Red

---

<sup>3</sup>Ibid.

Square drag strip" is only one method of Soviet disclosure. In order for quantitative information to reach Western eyes, the Soviets rely on the "free services of an otherwise very well funded, internationally recognized C.P.A."<sup>4</sup> Who might that be?

Why it's the U.S. national intelligence system! Hence the symbiotic relationship between U.S. intelligence and the Soviet Union. The Soviets have been 'cooperating' with U.S. national intelligence.<sup>5</sup>

The extent to which the symbiotic relationship described by Katz has been a beneficial one for the Soviets will be discussed in greater detail in later portions of this project. Katz and Navrozov both suggest that the Soviets can, with a fair degree of accuracy, control the amount of information they want the West to "discover" about them -- so that it is neither "too much" nor "too little" for the political purpose at hand. Such characterizations may or may not overstate Soviet skills in controlling the export of information. What is not in doubt is that in a variety of ways unavailable in Western democracies, the Soviets can exploit the closed nature of their political system so as to manipulate the image of both their military

---

<sup>4</sup>Amrom H. Katz, Verification and SALT, The State of the Art and the Art of the State (Washington, D.C.: The Heritage Foundation, 1979), p. 29.

<sup>5</sup>Ibid., emphasis his.

capability and their political intentions.

1. Conceptual Ambiguity

One example of how the Soviets can control and, when desirable, alter political realities lies in the facility with which the meanings of concepts can fluctuate to suit the political purpose at hand. This is possible because Russia is not only the dominant Soviet Republic, but also the homeland of a language not spoken elsewhere. By making Russian the "official" language of the U.S.S.R., for example, the Politburo reserves for itself the power to adjudicate the meaning of a Constitution that appears on its merits quite palatable even by Western standards. Officially declared individual freedoms can thereby legitimize government policy, even while watchdogs of the Helsinki accords on human rights are arbitrarily imprisoned or "internally exiled." Nor, once again, is the political authority to assign meanings to concepts limited to the Soviets' domestic constituencies. Going well beyond the boundaries of diplomacy's traditionally calculated ambiguity, Soviet exploitation of words often brings into question the very efficacy of communication.

Many in the West failed to foresee, for example, that Soviet ambitions toward Eastern Europe after World War II would impel Russian leaders to establish a

satellite empire in that region. As former State Department Counselor Helmut Sonnenfeldt has explained that error:

Our understanding of Soviet behavior was clouded by the misconception that in using terms such as 'democracy' and 'independence' to describe their postwar intentions toward Eastern Europe, the Soviets meant what Americans understood those terms to mean. They did not.<sup>6</sup>

Similar confusion has reigned for the past three and a half decades as to whether Russian bases in Eastern Europe are a "springboard for aggression" or simply a benign "buffer" for a culturally defensive nation whose historic fear of invasion was magnified by its World War II trauma.

Even today, however, the Soviets claim to share the West's interest in "democracy" in Eastern Europe. Article 19 of the CPSU's Party Rules, for example, includes the following two principles among the values embraced by "democratic centralism":

---

<sup>6</sup>Helmut Sonnenfeldt, "U.S. - Soviet Relations in the Nuclear Age," Department of State Bulletin, (May 3, 1976), p. 578. Indeed, Stalin himself once said: "Words have no relation to actions -- otherwise what kind of diplomacy is it? Words are one thing, actions another. Good words are a mask for concealment of bad deeds. Sincere diplomacy is no more possible than dry water or wooden iron." As quoted by David S. Sullivan, "Lessons Learned From SALT I and II: New Objectives for SALT III," International Security Review, VI (Fall, 1981), p. 360.

a. Election of all leading Party bodies, from the lowest to the highest.

b. Periodic reports of Party bodies to their Party organizations and to higher bodies.<sup>7</sup>

First of all, although the Soviet Constitution guarantees (in Article 134) that elections will feature "universal, equal, and direct suffrage by secret ballot," candidates are always unopposed and write-in votes are considered invalid.<sup>8</sup> Secondly, while the main speech by the General Secretary at every Party Congress may represent an example of "periodic reports of Party bodies to their Party organizations," there is no evidence that these are occasions for pluralistic debate. Thirdly, other Party Rules effectively negate any lingering pluralism in the democratic centralism principle. Particularly relevant is this passage from the introduction to the Rules:

Ideological and organizational unity, monolithic cohesion of its ranks, and a high degree of conscious discipline on the part of all Communists are an inviolable law of the CPSU. All manifestations of factionalism and group activity are incompatible with Marxist - Leninist principles and with Party membership.<sup>9</sup>

---

<sup>7</sup>Donald D. Barry and Carol Barner-Barry, Contemporary Soviet Politics (Englewood Cliffs: Prentice Hall, Inc, 1978), p. 115.

<sup>8</sup>Ibid., p. 85.

<sup>9</sup>Ibid., p. 115.

If "democratic centralism" has any pluralistic substance to it whatsoever, it may be that on some issues Party members are accorded the opportunity for free discussion. But as one account of this concept formulated it, such discussion can only continue "until a decision has been made."<sup>10</sup> Democratic centralism, a term that lacks consistent correspondence with any concrete idea, therefore has no meaning whatsoever. The term can be used to imply democracy when that is convenient, or centralized authority when that is convenient. In reality therefore, it is not a concept at all but an arbitrary social convention. It should be small wonder that the Governments of Eastern Europe have changed so little since the Red Army's occupation in 1945. Even though it was the violation of Poland's sovereignty that caused England to enter World War II against Germany in the first place, and even though Stalin agreed with Churchill and Roosevelt at Yalta that the Polish regime would be "reorganized on a broader democratic basis," free elections have remained unheard of to this day and are likely to remain so for

---

<sup>10</sup>Abdurakhman Avtorkhanov, The Communist Party Apparatus, (Chicago: H. Regnery Company, 1966), p. 100.

the foreseeable future.<sup>11</sup> But Poland's government, with the current martial law regime perhaps excepted, has been organized along lines of democratic centralism since 1945, and is thereby construed by the Soviets as being wholly compatible with Yalta's provisions.

The Poland example serves as ample evidence that the Orwellian manipulation of language is not a new tradition in the U.S.S.R. It is nevertheless a continuing problem; examples that are relevant to modern arms control are abundant. Charles Kupperman has observed, for example, that Soviet appreciation of what is "strategic" is much broader than the American understanding of this concept.<sup>12</sup> While the U.S. describes a hierarchy of potential conflicts (e.g. battlefield, theater, strategic, etc.), the Soviets view the world as a single (strategic) theater, in which capitalism and socialism have long been engaged in conflict. While the strategic objective for the U.S. may therefore be "deterrence" in the sense of avoiding "strategic" conflict, Soviet strategic

---

<sup>11</sup>Walter LaFeber, American, Russia, And The Cold War 1945 - 1975 (New York: John Wiley and Sons, Inc., 1976), p. 18.

<sup>12</sup>Charles M. Kupperman, "The Soviet World View," Policy Review, 7 (Winter, 1979), p. 45.

objectives are pursued in the course of day to day political decisions. This becomes particularly relevant, says Kupperman, "if one examines the strong synergism between Soviet political policies, strategies and tactics, and their enormous military programs."<sup>13</sup> Far from employing measures designed to avoid conflict, Soviet strategies require continual conflict according to this interpretation. One could elaborate by specifying any number of political implications that derive from the diverging definitions of what is "strategic," but one obvious outcome could be that "strategic arms control" would place limits only on those weapons with which the U.S. pursues its strategic objectives. Meanwhile the Soviets, for whom arms control itself would be a "strategic" tool, can appear to be similarly constrained. In the absence of a domestic dialogue that must accompany the evolution of strategy in an open society, the real weapons by which the Soviets pursue their stated objectives would thereby remain secretive and obscure. Arms control would thus have restricted not merely Western weapons, but Western minds as well.

Similarly, Richard Burt observes that arms control itself is misunderstood by the U.S. because "it is a

---

<sup>13</sup>Ibid.

mistake to view new agreements as part of a process of doctrinal convergence between Moscow and Washington."<sup>14</sup> In the absence of any shared consensus as to the meaning of "strategic stability," arms control itself is defined differently by the two States. Resultant agreements can perhaps ratify a portion of the military balance as it is, but will never restructure that balance along lines traditionally envisioned by the West. Foreseeing such problems as early as 1963, Harvey Averch pointed out that, given American assumptions of arms control partners' converging objectives, "it would be difficult to distinguish between a case in which the U.S. seeks stable deterrence and the Soviet Union seeks superiority, and a case in which both sides seek stable deterrence."<sup>15</sup> Once again, the capacity for the U.S. to discriminate between these cases is severely limited by the secrecy in which related decisions are made by the Soviets. Not only can true arms control objectives be obscured by the closed society, but if the Soviets genuinely do seek "superiority" rather than "stable

---

<sup>14</sup>Richard Burt, "A Glass Half Empty," Foreign Policy, 36 (Fall, 1979), p. 37.

<sup>15</sup>Harvey Averch, Strategic Ambiguity, Asymmetry and Arms Control: Some Basic Considerations (Santa Monica: U.S. Air Force Project Rand, March 1963), p. V.

deterrence," then it is possible to use arms control to create expectations that actually increase strategic ambiguity and uncertainty in order to mask a strategy that is not mutually desirable.<sup>16</sup>

If conflicting definitions of strategy are behind Soviet and American arms control objectives, then it would follow that the two States define deterrence and detente differently as well. For the U.S., deterrence has long been the fundamental objective of strategy, and arms control has been called the "litmus test" for detente. That the two sides share this understanding of their relationship is the premise of both arms control and detente as expressed in their 1972 "Basic Principles of Mutual Relations." This document -- something of a charter for detente -- commits the two governments to "the reduction of tensions in the world, and the strengthening of universal security and international cooperation," based on "reciprocity, mutual accommodation, and mutual benefit." In accordance with the American understanding of deterrence, both sides pledged to "do their utmost to

---

<sup>16</sup>Averch's discussion of intentional ambiguity calls attention to the "noise" problem that rendered warnings of Pearl Harbor extremely ambiguous. The problem is discussed by Roberta Wohlstetter, Pearl Harbor: Warning and Decisions (Stanford: Stanford University Press, 1962).

avoid military confrontations and prevent the outbreak of nuclear war." And regarding detente, the parties agreed to "proceed from the common determination that in the nuclear age there is no alternative to conducting their mutual relations on the basis of peaceful coexistence." Even in the aftermath of the SALT era, there is no point in arguing about whether deterrence drives Soviet arms control interests, or whether the Politburo remains committed to detente; the answer to these questions has become irrelevant because the words have become meaningless.

If by "deter," for example, one simply means "to prevent from acting" (as Webster's New Collegiate does), then the Soviets may intend to deter the destruction of their homeland by destroying as many American nuclear weapons as possible. If so, then an arms control agreement that freezes the number and location of those American weapons would serve the interests of a Soviet (but not an American) strategy of deterrence. In fact nothing in Soviet military doctrine distinguishes "nuclear deterrence" from the traditional notion of defense.<sup>17</sup> Whereas Western

---

<sup>17</sup>See for example P. Vigor, "The Semantics of Deterrence and Defense," and G. Jukes, "The Military Approach to Deterrence and Defense," in Michael MacGwire, ed., Soviet Naval Policy: Objectives and Constraints (New York: Praeger, 1975).

strategic thinking equates the use of nuclear weapons with the failure of deterrence, Soviet thinking specifies that "defense" has failed only if the Red Army is unable to recover and achieve final victory.<sup>18</sup>

According to a former First Deputy Minister of Defense and Chief of the Soviet General Staff, the main forces of such victory will be nuclear weapons aimed at the enemy's nuclear arsenal.<sup>19</sup> Reflecting on such disparity between Russian and American perspectives toward deterrence, William Van Cleave has observed that "the disassociation of Soviet views from Western doctrine has been a consistent and categorical theme," which makes "Soviet military literature most uncomfortable reading for Western supporters of convergence theory."<sup>20</sup> Similarly Abraham Becker explains that the threat of Soviet "breakout" (large scale violation of security agreements) must be taken seriously because of "the basic asymmetry of strategic

---

<sup>18</sup>Michael MacGwire, "Soviet Military Doctrine: Contingency Planning and the Reality of World War," Survival, 22 (May/June, 1980), p. 108.

<sup>19</sup>V. D. Sokolovski, Military Strategy (Moscow, 1968), pp. 346-47.

<sup>20</sup>William R. Van Cleave, "Soviet Doctrine and Strategy: A Developing American View," in L. L. Whetten, ed., The Future of Soviet Military Power (New York: Crane, Russak and Co., Inc, 1976), p. 46.

conception and goals of the two sides . . .<sup>21</sup> But even if it is clear that the concepts are given conflicting meanings by the two sides, a "basic asymmetry of goals" is only one of several possible conclusions, albeit among the least preferable ones. The only thing that is widely accepted is that confusion and uncertainty -- unattractive conditions for major policy change in the West -- tend to cloud Western analyses of Soviet intentions.

The mere fact that these arguments remain inconclusive, let alone the probability that they are correct, is itself a highly relevant political reality. If the purpose of "arms control" has been to stabilize the "strategic" balance of power, so as to enhance mutual "deterrence," then conceptual ambiguity would seem somewhat counterproductive. But in the case of arms control between open and closed societies, such uncertainty is an exploitable asset for the better informed party. In this case the secretive nature of Soviet politics may be a strategic asset -- a mask for divergent strategic concepts -- rather than simply a cultural trait, but such a conclusion might be

---

<sup>21</sup>Abraham S. Becker, Breakout as a Soviet Policy Option (Santa Monica: The Rand Corporation, March 1977), p. X.

premature on the basis of conceptual ambiguity alone. What should be clear is that when the U.S. enters a relationship of relaxed tensions with the U.S.S.R. on the basis of American connotations of relevant concepts -- never mind a relationship involving security negotiations -- a bargaining concession of some magnitude has already taken place.

According to Kupperman, this disadvantage to the U.S. is no accident because detente for the Soviets is itself an offensive strategy.<sup>22</sup> For the U.S., detente is the dominant category from which deterrence and arms control are deduced. For the Soviets, according to this view, arms control as well as detente are subsets of a strategy that always remains the principal category. The distinction is more than semantical. While detente is a policy whereby tensions are relaxed by the U.S., it is a framework within which the struggle is to be intensified by the U.S.S.R.<sup>23</sup> Thus, says Kupperman:

What is unique about the present strategy of detente is that the Soviet Union can bring unprecedented power against a U.S. that lacks the political will necessary to contain Soviet imperialism. For the Soviets, the key is to exploit these opportunities without 'overplaying' the assault. The Soviets do

---

<sup>22</sup>Kupperman, p. 64.

<sup>23</sup>Ibid.

not want to provoke a strong U.S. counterresponse that could delay or deny the Soviet drive for global dominance.<sup>24</sup>

This description is reminiscent of the earlier discussion of arguments by Lev Navrozov and Amrom Katz as to how the Soviets can disclose "enough" information about their arsenals to serve political purposes without disclosing "too much" for strategic purposes.

In order to walk this tightrope without "too much" intensification of the struggle, according to Kupperman, the Soviets strive first to obscure their quest for military superiority as an acceptance of "parity"; secondly, to achieve American recognition of Soviet imperialistic gains of the past as present spheres of influence; and third, to constrain Western military responses.<sup>25</sup> Along these same lines, Graham Vernon observes that:

Differences between the United States and the Soviet Union are both real and deep enough that neither side needs the additional burden of terminological ambiguity. Yet it is apparent, even to the casual observer of world events, that the U.S. and Soviet interpretations of the 'rules' of peaceful

---

<sup>24</sup>Ibid. But see also Leon Goure, "An Overview of Soviet Perceptions on the U.S.S.R.'s Position and Prospects in the Current International Situation," A Discussion Paper Prepared for the CAIS-ARPA Workshop on Soviet Perceptions, University of Miami, January 26, 1966, p. 4. Cited by Kupperman.

<sup>25</sup>Kupperman, p. 65.

coexistence or of detente...are widely  
divergent.<sup>26</sup>

But according to Vernon, the possibility that Soviet-American definitions of detente are incompatible with one another is just one of several possible interpretations. Unlike Kupperman, Vernon wonders whether the more correctable problem of misunderstood guidelines about detente might be a more valid characterization of the problem.<sup>27</sup> The comparison demonstrates that, even among those who share understanding of the problem, ambiguous interpretive results easily ensue. Ambiguity begets ambiguity; the consequence necessarily involves uncertainty in American policy guidance.

If the Soviets are indeed walking the tightrope described by Katz, Navrozov, Van Cleave, Becker, and Kupperman, then they are walking it quite successfully because they have achieved the benefits of uncertainty and anxiety without the related costs of intensified political competition. If this is the case, then intellectual stalemates, such as between Kupperman and

---

<sup>26</sup>Graham D. Vernon, "Controlled Conflict: Soviet Perceptions of Peaceful Coexistence," Orbis, 23 (Summer, 1979), p. 271. See also Ernest Conine, "Getting Along, Russian Style," Los Angeles Times Nov 26, 1979, Part II, p. 7.

<sup>27</sup>Ibid.

Vernon, simply excuse inaction by the U.S. In the meantime, a relaxed bilateral relationship continues in which the Soviets hold a disproportionate share of security related information while the U.S. bears a disproportionate share of security related risk.

## 2. Beyond Ambiguity

V. I. Lenin once reminded the forgetful that "the purpose of terror is to terrorize."<sup>28</sup> In the modern age when the weapons of war generate such great fear, uncertainty about a powerful adversary's strategic intentions is itself a mechanism of terror. The effect of a closed Soviet society therefore goes beyond whatever benefits secrecy may have provided for Russian societies in Lenin's time; in other words the effects of conceptual ambiguity exceed the propagandistic benefits that accrue to a state seeking merely to project a favorable image of itself. A substantial body of evidence indicates that the natural advantages wrought by societal closure are magnified still further by the U.S.S.R., whose secrecy is systematically tied to policy. In particular, the Soviets' emphasis on the principle of surprise, which they evidently regard as especially pivotal in the nuclear age, is directly

---

<sup>28</sup>Claire Sterling, The Terror Network (New York: Holt, Rinehart and Winston, 1981), p. 8.

associated in their military writings with strategic deception and secrecy.

Soviet strategists, who repeatedly stress the value of surprise, explain its use as follows:

Surprise is achieved in the following ways: by using various types of methods of combat; by misleading the enemy as to one's own intentions; by safeguarding the security of operational plans; by decisive action and skillful maneuver; by unexpected use of nuclear weapons; and by using means and methods with which the enemy is unfamiliar.<sup>29</sup>

Furthermore, surprise is achieved, according to the new Soviet Military Encyclopedia, as follows:

by leading the enemy into error concerning one's own intentions; by keeping secret the concept of the battle and by concealment of the preparation for actions.<sup>30</sup>

Strategic surprise, according to the Encyclopedia, is best accomplished at the onset of hostilities "by using the unpreparedness of the enemy for war, by forestalling him in the beginning of active military operations," and later:

---

<sup>29</sup>Dictionary of Basic Military Terms (A Soviet View), trans. U.S. Air Force, Soviet Military Thought Series, no. 9 (Washington, D.C.: Government Printing Office, 1976), p. 35.

<sup>30</sup>M. M. Kir'yan, "Surprise," Sovetskaya Voyennaya Entsiklopediya (Soviet Military Encyclopedia), Vol 2 (Moscow: Voenizdat, 1976), trans. Harriet Fast Scott. But see the explication by Joseph D. Douglass, Jr., "Soviet Disinformation," Strategic Review, IX (Winter, 1981), p. 17.

by the unexpected use of new means of armed combat which have a strategic effect, by new methods of strategic actions, by a skillful choice of the direction of the main attack, by disinformation, and by other means.<sup>31</sup>

The central importance of surprise in these writings is indeed problematical to the West in view of the pervasive societal secrecy that characterizes the U.S.S.R., because even if it were sheer propaganda, repeated references to surprise are reminders of Soviet capability fully to exploit the ongoing imbalance of information for purposes of coercion. It is troublesome as well because the secrecy of Soviet institutions could obviously cloak even large scale, very thoroughly organized undertakings. As a result, a strategy could be authoritatively directed toward outcomes ranging from Western anxiety about Soviet intentions, as a minimum, to surprise nuclear war. Some of the numerous possibilities that lie between these two extremes will be the subject matter of this section.

Prominent among the possible exploitations of the secretive society, of course, is disinformation, which the CIA reports to have increased dramatically during

---

<sup>31</sup>Douglass, p. 17. Emphasis his.

detente.<sup>32</sup> Joseph Douglass, whose extensive works on the subject of Soviet disinformation are among the most authoritative and thoroughly documented current analyses available, notes that 1959 and the early 1970s are the "benchmarks" necessary to understand the technique. Mid-1959, when the KGB Department of Disinformation was established, coincides with the onset of Khrushchev's policy of peaceful coexistence. The early 1970s, when the disinformation "department" was upgraded to a "service," correlates with the beginnings of SALT and detente. "Active measures," according to Douglass, are directed primarily against the glavnyy protivnik (main enemy) -- the United States -- and include:

oral 'disinformation' (forgeries, false rumors), 'gray' and 'black' propaganda, manipulation or control of foreign media assets, political action and 'agent of influence' operations, clandestine radio stations, semi clandestine use of foreign communist parties and international front and special action organizations, staged or manipulated demonstrations, and even in the past, blackmail and kidnapping.<sup>33</sup>

---

<sup>32</sup>Deputy Director of Operations, Central Intelligence Agency, Soviet Covert Action and Propaganda, Feb 6, 1980, reprinted with editing as Soviet Covert Action (The Forgery Offensive) Washington, D.C.: Government Printing Office, 1980). Also Douglas, p. 17.

<sup>33</sup>Soviet Covert Action (The Forgery Offensive), p. II-4, and Douglass, p. 17.

According to a KGB training manual cited in CIA congressional testimony, strategic disinformation has a definite role:

Strategic disinformation is directed at misleading the enemy concerning the basic questions of State policy, the military-economic status, and the scientific-technical achievement of the Soviet Union; the policy of certain imperialist states with respect to each other and to other countries; and the specific counterintelligence tasks of the organs of State security.<sup>34</sup>

Once again, the relationship between these concepts and Soviet policy is a matter of speculation. As a minimum, however, such discussions add to the already extensive body of uncertainty that frustrates serious efforts to comprehend Soviet foreign policy. As Douglass points out, this difficulty also helps explain the general disagreement that seems to characterize Western intelligence agencies' interpretation of even the most basic Soviet data. Closely related to Kupperman's conclusions (about the basic Soviet objectives of detente), Douglass reports the three general objectives of Soviet disinformation:

1. To confuse world public opinion regarding the aggressive nature of Soviet policies.
2. To create a favorable environment for the execution of Soviet foreign policy

---

<sup>34</sup>Soviet Covert Action, p. II-6-A, and Douglass, p. 17.

3. To influence both world and American public opinion against U.S. military and political policies and programs which are perceived as threatening by the Soviet Union.<sup>35</sup>

The tradition of diplomatic deception is a new one in neither Soviet nor in Russian history. In a remarkably parallel characterization of 19th century Russian secrecy, the Marquis de Custine explained its relevance as follows:

The Russians' Byzantine policy, working in the shadow, carefully conceals from us all that is thought, done, and feared in their country. We proceed in broad daylight; they advance under cover; the game is one sided. The ignorance in which they leave us blinds us; our sincerity enlightens them. We have the weakness of loquacity; they have the strength of secrecy. There, above all, is the cause of their cleverness.<sup>36</sup>

The extent to which Soviet secrecy is a cultural trait may be less than the extent to which it is simply a strategic tradition. In confirmation hearings for his current position as Special Representative for the U.S. Arms Control and Disarmament Agency, Edward Rowny

---

<sup>35</sup>Soviet Covert Action, p. I-3, and Douglass, p. 18.

<sup>36</sup>Custines Eternal Russia, Monographs in International Affairs (Washington, D.C.: Advanced International Affairs Studies Institute, 1976), p. 114. Also quoted by Foy D. Kohler, SALT II: How Not To Negotiate With the Russians, Monographs in International Affairs, 1979, p. 3. Also quoted by David S. Sullivan, Soviet SALT Deception (Boston: Coalition for Peace through Strength, 1979), p. 15.

indicated his agreement with this principle:

Once I began to understand what happened to the Russians under the Tartar yoke, why they were willing to submit to the Tartars and why they resorted to secrecy, I began to understand how the Soviets look at things.<sup>37</sup>

Similarly, Richard Nixon has argued that "understanding the Soviet challenge requires an understanding of how Russia has not changed as well as how it has."<sup>38</sup> Thus Nixon recalls a 1967 statement by NATO Secretary General Manlio Brosio, who had been Italy's ambassador to Moscow for five years:

I know the Russians. They are great liars, clever cheaters, and magnificent actors. They cannot be trusted. They consider it their duty to cheat and lie.<sup>39</sup>

As to the question of whether the Russian tradition of diplomatic deception is an aspect of Soviet strategy as well, there is considerable evidence to support the contentions of Rowney, Nixon, and Brosio. Perhaps the best known example of Soviet

---

<sup>37</sup>U.S. Congress, Senate, Committee on Foreign Relations, The Nomination of Edward L. Rowney of Virginia to be U.S. Special Representative For Arms Control and Disarmament Negotiations with the Rank of Ambassador, July 9 and 10, 1981, p. 47. Here Rowney seems to be referring to the position espoused by the historian Tibor Szgmuely and others -- that Russia's resistance to Tartar oppression is the closest analogy to total war in Europe's history prior to 1917.

<sup>38</sup>Richard Nixon, The Real War (New York: Warner Books Inc, 1980), p. 49.

<sup>39</sup>Ibid., p.44.

diplomatic deception was the August 1939 Molotov - Ribentrop Nonaggression Treaty. The Agreement, which was initially suggested by the Soviets, was particularly shocking to France and England because five months earlier Chamberlain had finally drawn the line by declaring the Allies' intent to go to war if Germany violated Poland's independence. Stalin's "surprise" not only assured Germany of Soviet neutrality while Nazi armies conquered Poland in the Fall, but guaranteed Hitler a single front while he invaded Denmark, Norway, and France as well. Clearly by acquiring free reign in Latvia, Estonia, and Lithuania (Soviet Republics ever since), which the British and French had been reluctant to grant, Stalin's motive had been simply that of getting a better deal. The Soviets, who subsequently seized Eastern Poland and incorporated that property into the Ukrainian and Belorussian SSRs, also deported over one million Poles to the interior U.S.S.R. Stalin's support for the Germans also included the Comintern's spread of defeatist propaganda in the French army and, more important, Stalin's delivery to Hitler of grain, iron ore, oil, and Far Eastern rubber. The Anglo-French guarantee of Polish independence, a virtual godsend that had freed Soviet leaders from the

nightmare of having to stand alone against a German Army based in Poland, was thereby exploited by the Soviets as a diplomatic tool rather than as an alliance against an international menace.<sup>40</sup>

More recent evidence of Soviet deception is also abundant. The highest ranking Warsaw Pact military defector to date, Major General Jan Sejna, who escaped from Czechoslovakia six months before Russian tanks brought the 1968 Prague Spring to its violent conclusion, has offered such evidence.<sup>41</sup> Sejna, who was the senior party official in the Czech armed forces and a member of the Presidium of the Czech Parliament, attended Warsaw Pact planning meetings for ten years and thereby participated in each significant political decision. According to Sejna, a 1968 Warsaw Pact meeting chaired by Brezhnev initiated the formulation of a strategic plan setting out the domestic and foreign policy objectives of the entire Alliance. The

---

<sup>40</sup>Edward C. Thaden, Russia Since 1801 (New York: John Wiley and Sons Inc, 1971), pp. 580-2; Thomas P. Neill, Daniel D. McGarry, and Clarence L. Hohl, A History of Western Civilization (Milwaukee: The Bruce Publishing Co, 1962), p. 1150; Charles DeGaulle, The Complete War Memoirs of Charles DeGaulle, Volume I, The Call To Honor (New York: Simon and Schuster, 1955), pp. 28-32.

<sup>41</sup>Lord Ch...font, "Moscow's Brutal Reality," The Times (London), Jul 28, 1975, p. 12.

resulting Long Term Strategic Plan emerged a year later with ten volumes devoted to foreign policy alone.<sup>42</sup>

General Sejna reported that the Plan's first phase -- preparation for peaceful coexistence with the West -- had been completed in 1959. It was during this period of "de-Stalinization" that an opening to the West was achieved through the illusion that the communist countries were prepared to abandon military confrontation in favor of peaceful competition. The second phase -- which had begun in 1960 and would continue through 1972 -- was to promote political disunity in the West and to accelerate social dislocation in the capitalist countries. European communist parties, trade unions, and student organizations were to be encouraged to stimulate internal conflict and, in the U.S., the growth of isolationism. On the purely military side, Warsaw Pact forces were to be strengthened as a hedge against future arms control agreements.

Phase three of the Plan -- the period of "dynamic social change" -- was designed to cover the period up to 1985. During this phase a program of friendship and cooperation with the U.S. was designed to ensure the maximum economic and technical advantages for the

---

<sup>42</sup>Ibid.

Soviet Union, while undermining support in the West for effective military forces. The debilitation of NATO, which would have begun in phase two, would continue through phase three and eventually result in the withdrawal of the American commitment to Europe's defense. In the Plan's final phase -- that of "Global Democratic Peace" -- a "progressive peace loving" administration in the U.S. (by then isolated from both Europe and the Third World) would be sufficiently vulnerable to economic pressures. During this stage, sometime in the late 1980s, the Brezhnev Plan envisioned an intensification of the arms race culminating in Western withdrawal despite overwhelming Warsaw Pact superiority. When Brezhnev presented this plan in February 1968, shortly after his appointment of Dubcek as First Secretary of the Czechoslovak Communist Party, he is reported by General Sejna to have said:

If we want to win we cannot achieve our goals without strong military forces. Did we ever say that we would not use force if it was necessary to support progressive movements in, for example, France, Britain, or Sweden? ...This is the sacred duty of our forces -- to protect and support progressive movements.<sup>43</sup>

The secret Brezhnev Plan, as reported by General Sejna, was presented in Prague just eight months after

---

<sup>43</sup>Ibid.

the famous Glassboro, New Jersey summit conference (where the Soviets adamantly scorned the U.S. initiative for an ABM Treaty), and just four months prior to formal indications that the Soviets were interested in the American Glassboro proposal. It may be purely coincidental that the Soviet position toward the ABM underwent a 180 degree reversal during these twelve months, but the Prague meeting of February, 1968 marked the approximate center point of this twelve month period of uncharacteristic Soviet ambivalence. Although a vastly superior American ABM was offered up for negotiations at the U.S. initiated Glassboro conference in June 1967, Soviet Premier Kosygin's "unyielding attitude [according to John Newhouse] reversed the hope...that talks on limiting arms would be arranged in the near term..."<sup>44</sup> Newhouse describes the summit interchange as follows:

[Kosygin] clearly had no authority to discuss limiting arms, least of all ABMs. He replied in effect: 'How can you expect me to tell the Russian people they can't defend themselves against your rockets?'...McNamara made a long, detailed, and impassioned presentation...Kosygin did show interest; he was apparently impressed...by the intensity of the Americans.... The Glassboro experience may have moved Kosygin and some of his colleagues to do what Washington thought they already had been doing -- looking hard

---

<sup>44</sup>John Newhouse, Cold Dawn: The Story of SALT (New York: Holt, Rinehart and Winston, 1973), p. 94.

at the problems of stable deterrence. Glassboro, as [then Secretary of State] Dean Rusk suggests, may have been the start of SALT for the Russians.<sup>45</sup>

But if Sejna's description of Brezhnev's Plan is correct, then the optimism that Newhouse attributes to Secretary Rusk is only partially valid -- in the sense that Glassboro "would have moved Kosygin and his colleagues" to pretend they were "looking hard at the problems of stable deterrence." According to Newhouse, it was June 27, 1968 when Soviet Foreign Minister Gromyko announced to the Supreme Soviet that the Kremlin was ready to discuss the "mutual limitation and subsequent reduction of strategic means of delivery of nuclear weapons, both offensive and defensive, including anti-ballistic missiles."<sup>46</sup> The presumption upon which American participation in arms control was thereafter based, was that "the Brezhnev - Kosygin leadership sustained Khrushchev's avowed policy of preventing nuclear war through deterrence."<sup>47</sup> Less

---

<sup>45</sup>Ibid., pp. 94-5

<sup>46</sup>Ibid., p. 103

<sup>47</sup>Ibid., 105. It is important to point out here that Newhouse is not only the most commonly cited chronicler of SALT I's history, but is widely known to have been the recipient of the Nixon Administration's unofficially "leaked" background information. His account of the proceedings leading up to and including negotiations also presents the Administration and the

than three years after Gromyko's announcement that the Soviets had overhauled their ABM stance since Glassboro, the U.S. and Soviet Union solemnized their commitments to mutual vulnerability in the "Basic Principles of Mutual Relations" discussed earlier.

The May 1972 date of the "Basic Principles," the ABM Treaty, and the Interim Agreement on offensive arms, also marked the beginning of what General Sejna called "phase three," when the intensification of the arms race would lead to "overwhelming superiority for the Communist forces." Since that date, the Soviets have engaged in the largest peacetime military buildup in history. Far from "conducting...mutual relations on the basis of peaceful coexistence," as agreed in the "Basic Principles," the Soviets directly invaded Afghanistan and indirectly invaded Poland, Angola, and Ethiopia, while supporting further aggression by Cuba,

---

agreements themselves in a most favorable light. For further evidence that Newhouse accepted the premise of Soviet commitment to "stability" or mutual vulnerability see p. 2 (that the talks were launched for "a mutual need to solemnize the parity principle . . ." and that SALT is concerned with "finding an equilibrium in which the great powers feel secure."), p. 105 (that Brezhnev follows an unstated doctrine of deterrence), p. 167 (that Soviet concern for stability was beginning to match America's), p. 176 (that Soviet acceptance of ABM limitations indicates acceptance of MAD), and p. 260 (that the ABM Treaty represents Soviet renunciation of territorial defense).

North Yemen, North Korea, both Iran and Iraq, and Nicaragua. By the most conservative measures available, the Soviets are said to have outspent the U.S. in military hardware during the decade following SALT I by \$270 billion.<sup>48</sup>

Disagreements like the one between Kupperman and Vernon are therefore inevitable among Western analysts of ambiguous Soviet communications -- even when they are "objectively" evaluating the same "data." But conceptual ambiguity is only part of the problem in generating such ambivalence. The addition of strategic deception complicates the appreciation of even correct

---

<sup>48</sup>The following figures have been offered as estimates of the differential between Soviet and American defense spending: Caspar W. Weinberger's 1981 Senate Armed Services Committee Testimony: \$355 billion in 1982 dollars; President Reagan's 1981 Economic Message to Congress: \$300 billion in FY 1982 dollars between 1970 and 1979 including "military investment" (procurement, military construction, RDT&E) but excluding operating costs on both sides; The Pentagon's FY 1982 Posture Statement to Congress: \$270 billion between 1968 and 1979 (by including 1968 and 1969 when American investment was slightly higher); Dr. William J. Perry, Carter Administration Under Secretary of Defense for Research and Engineering: \$350 billion in FY 1982 dollars between 1972 and 1982; Chairman of the JCS, David C. Jones' FY 1982 Posture Statement: \$450 billion between 1972 and 1982 in investment and operating costs; Representative William L. Dickinson (Ala) of the House Armed Services Committee: \$420 billion between 1971 and 1980 based on a CIA report to the Committee. The disparity in estimates demonstrates the difficulty in both estimating Soviet defense spending and in comparing Soviet and American economic expenditures.

information about a closed society. As Pipes and Douglass imply, the Soviets often specify precisely what their strategic intentions are. Speaking to the 25th Party Congress on February 24, 1977, for example, Leonid Brezhnev articulated rather trenchantly the same two-track strategy attributed to him by Sejna:

...it is clear as can be that detente and peaceful coexistence relate to interstate relations. Detente in no way rescinds, or can rescind, the laws of the class struggle.<sup>49</sup>

While Americans were arguing among themselves about whether detente should involve political "linkage," the Chairman of the CPSU was boasting openly to his followers that peace with the U.S. would endure alongside traditional Marxist - Leninist imperialism. The Soviets thereby achieved the benefits of traditional international diplomacy without compromising at all their dialectical interclass worldview. And they had articulated the dual nature of the strategy in public!

The use of this tactic is not a new practice for the Soviets. Indeed, Dean Acheson described precisely the same problem a quarter-century ago:

No matter how plainly the Russians talk and act, we simply refuse to believe what they say and to understand the meaning of what

---

<sup>49</sup>Cited by Vladimir Bukovsky, "The Peace Movement And The Soviet Union," Commentary, May, 1982, p. 28.

they do. President Eisenhower and Secretary Dulles keep insisting that the test must be deeds, not words. Floods of deeds follow, amply explained by torrents of words. Yet our leaders and, indeed, our people cannot believe what they see and hear.... The friendliness which underlies American life makes it impossible to believe that congeniality can accompany the most profound hostility to ourselves and all we believe. As Justice Holmes correctly observed, candor is the best form of deception.<sup>50</sup>

The principle that Acheson attributed to Justice Holmes, about candor being the best form of deception, is one that is well known to the Soviets. According to Jay Epstein, Lenin himself articulated the same "governing principle of Soviet disinformation" in 1920. When Felix Dzerzhinsky, Lenin's first chief of intelligence, inquired as to Lenin's policy toward dezinformatsiya, Lenin replied: "Tell them what they want to believe."<sup>51</sup>

Lenin's comprehension of the effectiveness of this guideline was not without shrewd insight. Vladimir Bukovsky discusses how the Soviets today, through their World Peace Council, have mobilized extensive sympathy for their peaceful intentions throughout Europe and

---

<sup>50</sup>Dean Acheson, Power and Diplomacy (Cambridge: Howard University Press, 1958), pp. 9-10.

<sup>51</sup>Edward Jay Epstein, "Disinformation: Or, Why the CIA Cannot Verify an Arms Control Agreement," Commentary, July, 1982, p. 24.

America. Through this and other mechanisms by which they influence the Western media and "progressive" people throughout the world, the Soviets have successfully heightened fear of nuclear war. They have done this not by rational argument, says Bukovsky, but by messages of panic; by instilling the idea that nuclear weapons are immoral; by appealing to the belief that American armament programs make nuclear war more imminent; by feeding the dual images of a traditional Soviet "craving for peace" and a Western deterrent that "doesn't deter anymore"; by instilling fear that communities allowing bases for nuclear weapons will be natural targets in nuclear wars; and by reinforcing the conventional wisdom according to which the Soviets will follow suit as soon as the West disarms itself.<sup>52</sup> Regardless of their shallow and irrational bases in logic, and regardless of how such wisdoms defy history, these are things that Western peace-makers sincerely "want to believe."

More straightforward statements of Soviet intent, on the other hand, are completely ignored. Virtually unreported in the nation's newspapers, for example, was the following observation made recently by the chief of

---

<sup>52</sup>Bukovsky, pp. 25-41.

the Soviet general staff, Marshal N. V. Ogarkov, to a visiting U.S. Congressman:

The Soviet Union has military superiority over the United States. Henceforth, the United States will be threatened. [It] had better get used to it!<sup>53</sup>

Also unreported among those who hear only what they "want to believe" are remarks such as one by Foreign Minister Andrei Gromyko according to which the "present preponderance" of the U.S.S.R. carries with it the power to "lay down the whole direction of international politics."<sup>54</sup> Soviet superiority is touted with particular emphasis in their military writings, such as Marxism - Leninism on War and Army, which advances the proposition that

In the new war, if it should be allowed to happen, victory will be with the countries of the world socialist system which are defending progressive, ascending tendencies in social development, have at their command all the latest kind of weapons, and enjoy the support of the working people of all countries. The balance of forces between the two systems, the logic of history, [and] its objective laws...all predict such an outcome. The might of the Soviet State, of the entire socialist community, which possesses the economic, moral-political and military-technical preconditions for utterly

---

<sup>53</sup>Alvin Z. Rubinstein, Soviet Foreign Policy Since World War II (Cambridge: Winthrop Co, 1981), p. 166.

<sup>54</sup>Kommunist, No 14, September, 1975, p. 5.

routing any aggressor, substantiates this view.<sup>55</sup>

Western rejection of such evidence of Soviet militancy takes several forms. One common theme, as discussed, is that popular literature and popular thinking in the U.S. simply treat the conceptual duplicity in Soviet language as evidence of what they "want to believe." The skill of Russian Americanologists in putting the desired backspin on such popular interpretations is part of the explanation for the peaceful Soviet image that often emerges. A more fundamental explanation, however, lies in the traditional Western impulse to require solid proof before accepting a less than optimistic perspective when other choices are available. Thus Fred Kaplan, after examining arguments about Soviet militarism advanced by Richard Pipes, Colin Gray, and the Committee on the Present Danger, asserts that

The politicians and academics who have made this idea almost commonplace claim that proof of Soviet intentions can be found in the officers' manuals and military staff journals published in the U.S.S.R.<sup>56</sup>

Kaplan overstates the extent to which any of these

---

<sup>55</sup>Marxism - Leninism On War and Army (Moscow: Progress Publishers, 1972), p. 46.

<sup>56</sup>Fred Kaplan, "The Nuclear Debate," The Atlantic, July, 1982, p. 47.

authors equate "evidence" from Soviet writings with "proof" of Soviet intentions. Normally the case advanced by Pipes and Gray, for example, is buttressed not just by the presence of these writings but by their clear association with the Soviet war economy, with the types of weapons purchased and the ways they are deployed, with Marxist - Leninist - Clausewitzian ideological frameworks, and with the traditions of Russian and Soviet diplomacy. Yet Kaplan is one hundred percent correct in either case: whether one examines the writings in a vacuum or in conjunction with other evidence, they do not categorically prove the veracity of their author's concerns. Even if social analysts collectively agreed on how to prove their theories, which they do not, there remains considerable latitude between thoughtful and persuasive arguments, such as those of Pipes and Gray, and the outright refutation of alternate explanations. Kaplan himself speculates about several such counterarguments in his 3-1/2 page article which was probably far more widely read than either Pipes or Gray. The point is that the burden of proof is on those arguing against what the consumers of their logic want to believe.

The resulting environment is a set-up for a well organized campaign of deceptiveness by a closed

society. Soviet ambiguity breeds American ambivalence -- "simultaneous conflicting feelings toward a person or thing, as love and hate" -- and disinformation inclines Americans toward preferred interpretations. While the quest for proof (of other interpretations) persists, presumptions of innocence and good faith guide policy. Pipes has argued in recent Congressional testimony that one consequence of this confusion has been two decades of threat underestimation by American intelligence analysts:

My feeling is that, apart from whatever institutional problems there may be, the fundamental problem is that people drafting these estimates do not believe there is such a thing as a Russian or Soviet grand strategy...<sup>57</sup>

And while disbelief continues to color American intelligence guidelines, Leonid Brezhnev can describe detente to other communist leaders, less than a year after he signed SALT I, as follows:

We are achieving with detente what our predecessors have been unable to achieve using the fist . . . trust us, comrades, for by 1985, as a consequence of what we are now achieving with detente, we will have achieved most of our objectives in Western Europe. We will have consolidated our position . . . and a decisive shift in the correlation of forces will be such that, come 1985, we will be able

---

<sup>57</sup>Cited by Douglass, "Soviet Disinformation," p. 25.

to extend our will wherever we need to.<sup>58</sup>

3. Consequences (a case in point).

The Soviet Union is not just a tightly closed society then, but one that engages in deception as a regular component of its strategy and diplomacy. To say that the U.S. "does not trust the Soviets," as has long been the government's declaratory policy in matters related to arms control, is nevertheless only partially true. The U.S. seeks relief from anxiety through arms control, which intensifies the relevance of Soviet deception, and thereby invests more reliance in trust than most Americans would like to acknowledge. Furthermore, there is the problem of selective perception, as discussed in the preceding section, whereby public opinion often takes in only what it wants to believe. The Soviets, on the other hand, have often argued that arms control should be based on trust, but show little evidence that the value of such romanticism is of major importance in their worldview. The history of the bilateral relationship has been one in which the U.S. yields from the outset the advantages of political intimidation that result

---

<sup>58</sup>David Sullivan attributes the quote to British Intelligence. See his "Lessons Learned from SALT I and II...", p. 360.

from ambiguity in crucial information, and in which the U.S.S.R. thereafter manipulates that information and fully exploits the advantage granted.

The principal consequence for the U.S. has been a political environment of perpetual uncertainty and confusion, in which surprises regarding Soviet intentions have been the rule rather than the exception. As Edward Teller once explained in testimony against the 1963 Nuclear Test Ban Treaty:

This has been a time of extremely rapid development, and it has been a time full of surprises. At no time did we know what the next step would bring.... Most of us believed [in 1945] and U.S. intelligence firmly and unequivocally predicted, that the Russians would not have a nuclear explosion for many years. The first Russian test was a complete surprise.... I got very worried about the next surprise that might be in store for us, and we started on the next step which the majority of scientists said could not be done, the thermonuclear explosion. You know that within a short time that succeeded, with an effect almost a thousand times as great as the first explosion, and that, in turn was followed within a few months with the Russians producing something that looked very much like a thermonuclear explosion. Again, in contradiction to all expectations, to all predictions, to the explicit statements of the intelligence community.<sup>59</sup>

According to Richard Barnet, however, Teller should

---

<sup>59</sup>U.S. Congress, Senate Committee on Foreign Relations, Hearings, The Nuclear Test Ban Treaty, Executive Session M, 88th Congress, 1st Session, August 20, 1963, pp. 418-19.

have been even more surprised because the Soviets not only acquired a thermonuclear weapon but tested one months before the U.S. did.<sup>60</sup>

Teller's testimony went on to describe other surprises such as the 1957 Sputnik launch and the newly discovered possibilities associated with clandestine underground nuclear testing.<sup>61</sup> But there were well known intelligence overstatements by the U.S. during those years as well. In 1955, for example, as a result of the Soviets' mere reuse of the same bombers over and over again during the May Day parade, the U.S. grossly overestimated subsequent Russian bomber production.<sup>62</sup> But far more relevant because of its impact on American intelligence estimates of the ensuing quarter century was the famous "missile gap" of the late 1950s.

What has since been commonly dismissed as a case of partisan politics, interservice rivalries, and a

---

<sup>60</sup>Richard J. Barnet, The Giants; America and Russia (New York: Simon and Schuster, 1977), p. 110.

<sup>61</sup>Hearings, Nuclear Test Ban, p. 419.

<sup>62</sup>Les Aspin, "Debate Over U.S. Strategic Forecasts: A Mixed Record," Strategic Review, Summer 1980, p. 31. The incident has been reported by numerous other sources but Aspin gives numbers. According to this article, the Air Force projected 600-700 Soviet bombers by 1959; the NIE predicted "about 500 bombers by mid-1960." By 1961, however, the Soviets had deployed only 190 long range bombers, p. 31.

general inclination toward threat exaggeration, began with the Soviets' remarkable Sputnik launch in 1957 and continued through the Presidential election of 1960. The "missile gap" will be examined in some detail here, however, because it demonstrates the effectiveness of Soviet secretiveness, deception, and strategic disinformation. Not only did the incident achieve "surprise," as defined by the Soviet Military Encyclopedia, but it manifested the effectiveness with which the Soviets could manipulate the fears and anxieties of American society less than sixteen years after Pearl Harbor and less than twelve years after the end of global war. It will be shown that American "distrust" of Soviet strategic intentions was nevertheless as much a result as it was a cause of the missile gap controversy, and that conceptual ambiguity not only enabled the initial problem but also perpetuates its impact today.

In August of 1957, the Soviets tested the world's first ICBM. Two months later they demonstrated that the same booster could place a 184 pound satellite into an 18,000 mile per hour earth orbit -- and could therefore deliver payloads anywhere within a 4000 mile

surface radius.<sup>63</sup> The question of hostile applications of such technology quite naturally arose; Khrushchev then promptly exploited these anxieties by making outrageous public statements about the ongoing and forthcoming development of Soviet ICBMs. Even Les Aspin, a consistent critic of Air Force and CIA treatment of the missile controversy, acknowledges that the Soviets knew at the time what the U.S. would know only in retrospect -- that Khrushchev's claims were intentionally misleading.<sup>64</sup> With the full support of the Party, the Government, all sectors of the social system, and, of course, the Soviet media, Khrushchev began emphasizing the enormous destructiveness of nuclear weapons and describing his new ICBM as the "ultimate weapon." Persuaded by these claims (or else himself part of the masque), Mao-tse-tung began urging strong communist support for "wars of liberation," which he said could be safely fanned now that American power was neutralized.<sup>65</sup>

According to Aspin, the Air Force warned in 1957 that the Soviets could indeed deploy 500 ICBMs by 1960

---

<sup>63</sup>Walter Lafeber, American, Russia, and the Cold War, 1945-1975 (New York: John Wiley and Sons, Inc, 1976), p. 199.

<sup>64</sup>Aspin, p.32.

<sup>65</sup>Lafeber, p.200-01.

and 1000 by 1961. In the same National Intelligence Estimate, the CIA had said that no more than 100 ICBMs could be produced by 1960, and no more than 500 by 1961. Aspin explains the disparity as disagreement over when the SS-6 would begin mass production. When Soviet testing was interrupted in April 1958, the Air Force is said to have interpreted the halt as the beginning of deployment, while the CIA saw it as evidence of technical difficulty. Renewed testing in 1959 is said to have supported the CIA position.<sup>66</sup> In either case, Khrushchev's verbal bellicosity was itself a good reason to plan for the worst. In 1957, he issued an ultimatum to the West to vacate Berlin, a proclamation of his own global policy in support of wars of national liberation, and continual claims that the correlation of forces had shifted to the socialist world.

By 1959, speaking to the Twenty-First Party Congress, Khrushchev announced that the Soviet Union had initiated "mass production of ICBMs."<sup>67</sup> President Eisenhower and Secretary of Defense Neil H. McElroy publicly dismissed any negative implications these

---

<sup>66</sup>Aspin, p.32.

<sup>67</sup>"Khrushchev Says Rocket Success Shifts World Balance to Soviet," New York Times, January 28, 1959, p. 1.

claims may hold for American security,<sup>68</sup> but Khrushchev's efforts continued. Speaking to Polish members of the World Federation of Free Trade Unions, he boasted that:

I have told the Americans: You have no Intercontinental Ballistic Missiles. You have only missiles that can send up oranges [an allusion to the small size of the recent Vanguard I satellite]. We have missiles that can send up tons. Imagine the kind of bombs that could be contained in our missiles compared with the kind that could be contained in yours . . . We have much better equipment than the United States which will never be able to catch up.<sup>69</sup>

Similarly, a month later, Soviet radio broadcasts began pointing out that missile bearing submarines "could enter Hudson Bay...and bombard the industrial heartland of America."<sup>70</sup>

There were good reasons of course to reject

---

<sup>68</sup>"President Voices Pride in Missiles," New York Times, January 29, 1959, p. 6. Eisenhower referred specifically to American development of "airbreathing missiles of the pilotless bomber variety." See also Jack Raymond, "Great Debate on ICBM," New York Times, January 31, 1959, p. 3, in which McElroy spells out the DOD logic according to which the decision not to match Soviet ICBM output had been made.

<sup>69</sup>"Khrushchev Gives a Solemn Pledge Not to Start a War," New York Times, July 17, 1959, pp. 1-2.

<sup>70</sup>"Soviet Reminds U.S. of Submarine Might," New York Times, August 19, 1959, p. 6. This comment came 24 hours after Chief of Naval Operations, Admiral Arleigh A. Burke, had raised the possibility that the Soviets may have ballistic missile submarines (while the U.S had not yet deployed Polaris).

Khrushchev's claims as examples of the bluster that had come to typify his manner. McElroy, while acknowledging that the Soviets had deployed ICBMs in combat roles before the U.S. could, argued in July that the Soviets "could not have more than ten" such missiles and that "bugs" would delay the deployment of Atlas ICBMs for only two more months. Moreover, said McElroy, U.S. retaliatory power was more than a match in the meantime.<sup>71</sup> But the complexion of the entire debate changed in September 1959 when the Soviets successfully launched an 858 pound satellite on a 35 hour flight to the moon -- the first object sent by man from one cosmic body to another -- and accurately predicted its arrival within less than a minute and a half.<sup>72</sup> The U.S., which had tried unsuccessfully to accomplish such a feat five times,<sup>73</sup> was understandably stunned by the clear technological breakthrough. Even those who had been downplaying Khrushchev's claims now acknowledged that it left virtually no doubt about the potential range and accuracy of a Soviet ICBM. An

---

<sup>71</sup>"McElroy Indicates Soviet ICBM Lead," New York Times, July 27, 1959, p. 6.

<sup>72</sup>"Soviet Rocket Hits Moon...Signals Received Till Moment of Impact," New York Times, September 1, 1959, p. 1.

<sup>73</sup>"Feat Impresses Experts on ICBM," New York Times, September 1, 1959, p. 17.

equally well placed missile, it was estimated, could deliver its payload within less than five and a half miles of a target<sup>74</sup> -- more than sufficient accuracy to destroy a SAC base.

Less than three months later, the London based International Institute for Strategic Studies (IISS) published The Soviet Union and NATO -- The Military Balance, the first of what has since become a widely cited annual strength assessment pamphlet. The IISS, whose exaggerations of Soviet ICBM strength outdistanced any American overstatements before or since, credited the Soviets with a hundred missile bases and a missile service of 200,000 men, and the U.S. with 4 Thor IRBM bases (in Great Britain) and 3 Jupiter bases (2 in Italy, 1 in Turkey), with fifteen missiles at each site. The Soviet force was said to be composed not only of 1000 mile range T-4s and 1600 mile range T-3s, but with an unstated number of 5000 mile range T-2s as well. These were said to be deployed along the Baltic coast, throughout East Germany, the South Ukraine and in the Carpathian mountains between the Ukraine, Hungary, and Romania.

---

<sup>74</sup>Ibid. See also "Pentagon Sees Russians' Shot as Confirming ICBM Capability," New York Times, September 15, 1959, p. 20.

Far from discouraging these estimates, Khrushchev pointed out that his stockpile of hydrogen bombs was now "formidable," that his many rocket bases were "well concealed," and that a lead of "several years" in rocket development and production assured the Soviets of "unassailability" well into the future.<sup>75</sup> As he went on to specify before the Supreme Soviet:

The Central Committee of the Communist Party and the Soviet Government can inform you, Comrade Deputies, that, though the weapons we now have are formidable weapons indeed, the weapon we have today in the hatching stage is even more perfect and even more formidable. The weapon which is being developed . . . is a fantastic weapon.<sup>76</sup>

As 1960 came and election year politics began to heat up, the record reflects the anachronistic scene of liberal Democratic senators hammering an annoyed Republican president for not building ICBMs fast enough. The first and most vociferous of these "hawks," Senator Stuart A. Symington, referred in February to a "3 to 1" Soviet lead that "is being increased."<sup>77</sup> Referring to a statement made four years

---

<sup>75</sup>"Khrushchev Says Soviet Will Cut Forces a Third; Sees Fantastic Weapon; Strength Cited," New York Times, January 15, 1960, p. 1.

<sup>76</sup>"Excerpts from the Address made by Khrushchev to the Supreme Soviet," New York Times, June 15, 1960.

<sup>77</sup>"Symington Says President Misled Nation on Arms," New York Times, February 20, 1960, p. 1.

earlier by a Republican senator, to the effect that, in addition to bombers, SAC had a "growing stockpile of ICBMs," Symington accused the Administration of having misled the people. Far from narrowing this "missile gap," said Symington, "we haven't got any ICBMs." A former Secretary of the Air Force, Symington was commended by Senate Majority Leader Lyndon B. Johnson (D. Texas) for his forthrightness as Johnson joined him in the charges against the Administration.<sup>78</sup>

John F. Kennedy's initial reactions during the presidential campaign were more restrained than were those of his competitors for the Democratic nomination. Well prior to the election year, Kennedy had recorded his opposition to "massive retaliation" and its implausibility, especially during the coming year "in which our own offensive and defensive missile capabilities will lag so far behind those of the Soviets as to place us in a position of great peril."<sup>79</sup> But for Kennedy, the danger lay not so much in a crudely calculated numerical weapons inferiority, as in "our unwillingness and inability to strike the

---

<sup>78</sup>Ibid.

<sup>79</sup>John F. Kennedy, "The Missile Gap," (Speech presented on the floor of the Senate, August 14, 1958) The Strategy of Peace, ed. by Allan Nevins, (New York: Harper & Brothers, 1960), p. 34.

first blow."<sup>80</sup> The gap, according to Kennedy, would be represented by a shift in what he called the "deterrent ratio," a reflection of the zero-sum connotation he attributed to deterrence. American second strike capability during this "missile-lag period" would certainly enable the destruction of "a portion of their homeland," said Kennedy in 1958 on the Senate floor, and this would remain true "no matter how great their defenses or how decimated our retaliatory power."<sup>81</sup> But this punitive capability was fairly irrelevant to Kennedy, because

our experience with the illogical decisions of Adolph Hitler should have taught us that these considerations might not deter the leaders of a totalitarian state -- particularly in a moment of recklessness, panic, irrationality, or even cool miscalculation.<sup>82</sup>

War, according to Kennedy, was more of an instrument than an objective of Soviet foreign policy -- "a means of securing power and influence, of advancing [their] views and interests."<sup>83</sup> Thus the Soviets could be expected during the years of the gap "to use their superior striking ability to achieve

---

<sup>80</sup>Ibid.

<sup>81</sup>Ibid., p.37.

<sup>82</sup>Ibid. Emphasis mine.

<sup>83</sup>Ibid.

their objectives in ways which may not require launching an attack." The threat was therefore politically relevant to whatever extent it limited American warfighting ability:

[Soviet] missile power will be the shield from behind which they will slowly, but surely advance through Sputnik diplomacy, limited brush-fire wars, indirect non-overt aggression, intimidation and subversion, internal revolution, increased prestige or influence, and vicious blackmail of our allies. The periphery of the free world will slowly be nibbled away.... Each Soviet move will weaken the West; but none will seem sufficiently significant by itself to justify our initiating a nuclear war which might destroy us.<sup>84</sup>

Kennedy's initial reaction during the campaign was thus to disassociate himself from the simplistic numerical comparisons of Symington et.al. In one of his first informal campaign remarks, Kennedy simply acknowledged the difficulty created by Soviet secrecy:

I think the President and the Administration have acted in good faith and [that] he's not going to play with the security of the United States. But I do think it is extremely difficult to make a correct assessment with precision as to what a dictatorship is doing. Therefore I should err on the side of safety.<sup>85</sup>

Later the same day, speaking before 150 college newspaper editors, Kennedy chided the Administration

---

<sup>84</sup>Ibid., pp. 37-38.

<sup>85</sup>"Kennedy Disputes Defense Policies," New York Times, February 22, 1960, p. 8.

for not moving quickly enough on arms control. But his principal theme throughout the campaign was that, in the absence of thorough information about the Soviets' true capability, it was probably best to take Khrushchev at his word; and that the "minimum conditions for our survival" therefore required higher defense spending. In what was perhaps the first crude outline of what became his doctrine of "flexible response," he proposed the following priorities for an increased defense budget:

1. An emergency air alert program to make SAC bombers more survivable.
2. A stepped up approach to the Polaris and Minuteman programs and an acceleration of Atlas production.
3. A commitment to rebuilding conventional Army and Marine forces "to prevent brush fire wars that our capacity for nuclear retaliation is unable to deter."<sup>86</sup>

The impact of the missile gap controversy was clearly significant both in its contribution to public perceptions of a Soviet threat and in the 1960 Presidential election itself. But it would be incorrect to conclude from this that public or private reactions were inappropriate given official Soviet

---

<sup>86</sup>"Kennedy Pursues Rise in Arms Fund," New York Times, March 1, 1960. I have paraphrased except as noted.

statements and the secretive character of the arsenal being described. As far as the election year political hype so often associated with the "missile gap" phenomenon goes, Theodore White's Pulitzer Prize winning The Making of the President 1960 gives little if any importance to the issue. According to White, for example, missile comparisons were not even worthy of mention during the famous Kennedy-Nixon debates.<sup>87</sup> Moreover, despite whatever wrong conclusions the intelligence community may have come to regarding the late 1950s threat, no American President ever publicly encouraged policies responding directly to those projections. As noted throughout this discussion, the President and his defense spokesmen, perhaps due to intelligence photos from the U-2, consistently downplayed the issue while Eisenhower was in the White House. Similarly, once elected, Kennedy made no more claims as to the existence of a gap. Defense policies during Kennedy's brief tenure as President were as closely related to his earlier opposition to massive retaliation as they were to errors in the counting of global range missiles.

---

<sup>87</sup>Theodore H. White, The Making of the President 1960 (New York: Atheneum House, Inc., 1961), pp. 317-344.

What is noteworthy for purposes of this project, however, is the fluctuation of reactions from the immediate to the long term aftermath of the missile gap controversy. On November 19, 1961, a year after the election of Kennedy, Administration officials announced that the most recent National Intelligence Estimate indicated an American lead in ICBMs. It was noted that the U.S. now had four operational squadrons of Atlas missiles and would deploy eighteen more Atlas and Titan missiles by the end of 1961. Soviet ICBM strength, by comparison was projected to be "between thirty and seventy-five" by that same time.<sup>88</sup> But on the same day that the new information was released, Soviet military leaders claimed new deliverable warheads in the 100-megaton range.<sup>89</sup> Since the Soviets were known actually to have tested a nuclear device of fifty to sixty megatons some three weeks earlier, the new claim was more than plausible. In making the announcement, the Soviets claimed to be "superior to the U.S. in both rocket attack and rocket defense" and furthermore that

---

<sup>88</sup>Jack Raymond, "U.S. Missile Lead Claimed in Study," New York Times, November 19, 1961, p. 1, and Hanson W. Baldwin, "New Figures Close 'Missile Gap'," New York Times, November 26, 1961, part IV, p. 4.

<sup>89</sup>"100-Megaton Rocket Reported by Russia," New York Times, November 19, 1961, p. 44.

"the backbone of the Soviet fleet was missile-firing atomic submarines."<sup>90</sup>

The second interesting reaction to the announced "end" of the missile gap was that of the American news media. The New York Times, the principal source of reporting cited throughout this discussion of the missile controversy, typified the nation's leading editorial reactions. The Times editorial writers were clearly not relieved by the November 19 revelation as they reflected on it the following day. Acknowledging first the "considerable margin of uncertainty" surrounding estimates of Soviet strength, The Times reluctantly conceded that Army, Navy and Air Force concurrence "cannot be dismissed lightly." After expressing this skepticism, the editorial went on to ask suspiciously:

And if the conclusion is correct, the question immediately arises why the Soviet Union has not built as many ICBMs as it could have. Was this because of economic or technical difficulties? Or is there a political explanation?...The new evaluation of relative Soviet-American ICBM capabilities cannot lead to complacency. The Soviet Union, like ourselves, has a diversified and most powerful military machine equipped with many missiles of different ranges...<sup>91</sup>

---

<sup>90</sup>Ibid.

<sup>91</sup>"Missile Gap in Reverse," New York Times, editorial, November 20, 1961, p. 30.

A week later, The Times was able to be more specific in expressing its concerns:

The issue became one in part because Air Force intelligence estimates of Soviet missile capabilities, which were always far higher than other estimates, were used as political and propaganda footballs.<sup>92</sup>

The latter editorial, like the one of November 20, then went on to articulate several profound reflections on the experience:

1. Intelligence estimates, which deal with many unknown factors, can rarely be 100 percent accurate.... [But] national defense is too important to national security to become the football of service pressures or partisan politics.
2. The Defense Department, under Secretary McNamara, is establishing -- partly because of the very differences that led to the synthetic 'missile gap' -- a unified Defense Intelligence Agency. Ironically, unless this agency is very carefully developed, guided and restrained its 'cure' could be worse than the evils it is intended to remedy. For it is far safer to have differing intelligence estimates -- even if they can be exploited for petty ends -- than to force intelligence estimates to conform to the mold of policy.
3. Finally, despite the present assessment that the United States -- across the board -- is equal or superior to Russia in missile numbers and technology, this is no time to relax.... [Russia] is striving, as we are, to reach first the next great

---

<sup>92</sup>"That Missile Gap," New York Times, editorial, November 27, 1961, p. 28.

milestone in military development -- a 'missile killer' system. The price of freedom is militarily high; we must not only remain strong but we must convince our friends and enemies that we are, in fact, the strongest power on earth.<sup>93</sup>

Thus The New York Times recognized not only that there may be strategic dimensions beyond those reflected in long range missile comparisons, but also that American threat assessment skills would be severely jeopardized if the wrong lessons were learned from errors in assessing a closed society's arsenal.

It is unfortunate that experts in subsequent years and decades would prove less insightful than The New York Times had been in 1961. As Albert Wohlstetter has thoroughly documented, centralized intelligence estimates since 1962 have suffered from precisely the "cure" that the Times was concerned about.<sup>94</sup> Although the Air Force's estimates of Soviet ICBM growth would continue to exceed those of other intelligence agencies, for example, these analyses would be reflected in National Intelligence Estimates only as

---

<sup>93</sup>Ibid., emphases mine.

<sup>94</sup>See for example Albert Wohlstetter, "Racing Forward or Ambling Back?" in Defending America, Introduced by James R. Schlesinger (New York: Basic Books, Inc., 1977), pp. 110-168, or "Legends of the Strategic Arms Race," United States Strategic Institute, report 75-1.

footnotes, and even they would consistently understate the Soviet ICBM buildup of the ensuing twenty years. Nevertheless, widely accepted dogma for these two decades would have it that a "worst plausible case" dynamic -- or a systematic bias in threat analysis -- was characteristic of American intelligence work. According to this logic, institutional self interest, of which the missile gap was simply an early but typical example, has two common byproducts. On the one hand such bias causes the national security community to aggrandize itself by "erring on the side of caution." On the other hand such overreactions necessitate Russian reactions ("action-reaction") and thus stimulate "another round in the arms race," for which the U.S. is thus responsible.

Cases in point are abundant. Roger and Earl Molander, for example, carried the message around the country throughout 1982 that:

The 'bomber gap' was replaced by the 'missile gap.' (This pattern is characteristic of worst case analysis: gaps never seem to go away; they just change their focus.) The reaction of the U.S. military establishment was dramatic. The U.S....ICBM program received a big boost, and by 1960 more than a hundred Atlas ICBMs had been deployed...<sup>95</sup>

---

<sup>95</sup>Roger C. Molander and Earl A. Molander, Nuclear War: What's In It For You? (New York: Pocket Books, 1982), p. 68.

Subtly or blatantly, these explanations attribute fear and uncertainty not to Soviet secretiveness or disinformation, or even to the Soviets' publicly exaggerated characterizations of their arsenal, but to self-generated anxieties or purely mechanistic impulses that can be terminated by unilateral American policy changes. The motive for denying that such termination is plausible, according to Jerome Wiesner, has been that "continuing competition...absorbs quantities of time, energy, and resources that no static environment would demand."<sup>96</sup> Thus Wohlstetter cites, from the litany of metaphors used to dismiss any political relevance in arms competition: "runaway technology," "uncapped volcanoes," "treadmills to nowhere," "worst case analyses," "and so on."<sup>97</sup>

Accordingly, the already difficult task of measuring Soviet power took on a whole new set of burdens as a result of the missile gap: it became absolutely anathema to the intelligence community's credibility to overstate any portion of the present or

---

<sup>96</sup>National Citizen's Commission, Report of the Committee on Arms Control and Disarmament, White House Conference on International Cooperation, November 28 - December 1, 1965.

<sup>97</sup>Wohlstetter, "Racing Forward or Ambling Back?" p. 112.

future arsenal to which American defense policy must respond. Underestimates, however, were to become entirely forgivable in the popular culture. Thus it is routinely overlooked that throughout the period of ICBM overestimates in the late 1950s, the U.S. was severely underestimating the intermediate and medium range missiles (IR/MRBMs) that the Soviets were deploying within range of Western Europe.<sup>98</sup> As Americans collectively exhaled over the discovery of a token ICBM threat in 1961 (most sources now say ten or fewer), Europeans took little comfort as the anticipated missiles turned out instead to be over 700 IR/MRBMs deployed in the late 1950s and early 1960s.<sup>99</sup> The reversal in priorities may have been the Soviet plan all along -- with Khrushchev's claims as diversions. More likely, however, the shift in emphasis simply reflected an initial Soviet strategic decision whereby targets in the U.S. were less attainable and of less immediate value than those in the rest of NATO. In

---

<sup>98</sup>Ibid., p. 116.

<sup>99</sup>Daniel O. Graham, Shall America Be Defended? (New Rochelle: Arlington House, 1979), p. 89. Graham thinks the Soviets committed themselves in 1957-58 to an MR/IRBM force of some 750 launchers and 2000 missiles. See also Richard J. Whalen, "The Shifting Equation of Nuclear Defense," Fortune, June 1, 1967, pp. 85-183.

either case, even those intelligence analysts who opposed the larger ICBM forecasts were stunned by the magnitude of the IR/MRBM buildup.<sup>100</sup>

According to William T. Lee, this misunderstanding was partially attributable to a traditional American propensity for "mirror imaging" its own targeting priorities; but, more specifically, the explanation goes back to the old problem of conceptual ambiguity. According to Lee, weapons are not "strategic" for American analysts unless they are "intercontinental."<sup>101</sup> Even the words "missile gap" (as opposed to the more accurate "ICBM gap" thought to exist) betray this inclination. For the Soviets, with their different history, geographic setting, and ideological orientation, however, "strategic" problems begin at the empire's border:

From Moscow to Bonn, London, Paris, Rome, and so forth, is a strategic distance to [the Soviets]. To the Soviets, North America is not the measure of strategic distance, but only one of the more remote strategic areas.<sup>102</sup>

---

<sup>100</sup>William T. Lee, "Intelligence: Some Issues of Performance," in Arms, Men, and Military Budgets; Issues for Fiscal Year 1978 (New York: Crane, Russak & Company, Inc., 1977), pp. 303-4.

<sup>101</sup>Lee, p. 305.

<sup>102</sup>Ibid., pp. 305-6.

Preoccupation with the uniquely American concept of what is strategic not only obscured perceptions from 1957 to 1961, but has also distorted today's revisionist view of the controversy as well. Notwithstanding Kennedy's Inaugural commitment to "pay any price" on behalf of "any friend,"<sup>103</sup> the association between a missile's range on the one hand and its strategic significance on the other, came to be regarded as natural. Individually and collectively, such images would dominate security analyses for the ensuing generation. Above all, however, once the "action-reaction" myth became connected with the image of "worst case analysis," the American intelligence community had lost its capacity to be taken seriously.

In this detailed review of the so called "missile gap," we have seen examples of many of the deceptive traditions attributed earlier to the Soviet Union. The controversy is worthy of research and analysis for a variety of reasons, partially because of its status as a "classic case" of conceptual ambiguity, propaganda, disinformation and strategic deception, and partially because of the long term "lessons learned" and their impact on subsequent U.S. intelligence credibility.

---

<sup>103</sup>John F. Kennedy, "Inaugural Address," January 20, 1961, State Department Bulletin, February 6, 1961.

Exploitation of their secret totalitarian society, however, has been demonstrated by the Soviets in numerous additional examples that have been discussed in the literature.

Joseph Douglass documents disinformation on a particularly blatant scale on behalf of Soviet opposition to NATO's nuclear modernization programs, aimed especially toward the neutron bomb and long range theater nuclear force decisions. According to Douglass, the Soviets spent over \$100 million in just three years to counter the neutron bomb program alone. The CIA has estimated, says Douglass, that this represented less than one percent of the Soviets' annual covert action and propaganda budget.<sup>104</sup> Douglass' allegations are further supported by recent reports coming out of the Western European anti nuclear movement.<sup>105</sup>

Foy D. Kohler, Leon Goure, and Mose L. Harvey, in their extensive analysis of Soviet participation in the preparation for, and the conduct of the 1973 Middle East

---

<sup>104</sup>Douglass, "The Growing Disinformation Problem," pp. 333, 350.

<sup>105</sup>See for example John Vinocur, "Rift in Antimissile Grouping Appears in West Germany," New York Times, April 6, 1982, p. 14. Vinocur reports that "the Greens," a leading component organization among groups opposing NATO's missile deployment plan, have withdrawn from the movement due to "scandalous" new levels of Communist influence.

war, conclude that the Soviets, through deception and direct military support, systematically exploited their new relationship of detente with the West. According to these authors, the October war demonstrated that the U.S. had been incorrect in assuming that the Soviets would give priority to detente in areas of special sensitivity to American interest -- especially when large scale war was inevitable. The authors point out, in particular, that the Soviets specifically violated the "rules of detente" spelled out by Secretary Kissinger on October 8, 1973.<sup>106</sup> Their conclusions are supported by a number of additional studies of the 1973 war as it related to detente and Soviet deception.<sup>107</sup>

Jay Epstein reports that during the late 1960s and early 1970s two KGB agents, claiming to be providing information on Soviet weapons developments, gave the FBI independent but dovetailing indications that the Soviets were on the brink of a crash program to "catch-up" with the U.S. in chemical-biological weapons. According to

---

<sup>106</sup>Foy D. Kohler, Leon Goure, Mose L. Harvey, The Soviet Union and the October 1973 Middle East War (Miami: Center for Advanced International Studies, 1974), pp. 123-4.

<sup>107</sup>See for example, Ilana Kass, Soviet Involvement in the Middle East: Policy Formulation, 1966-1973 (Boulder: Westview Press, 1978). See also Michael I. Handel, "The Yom Kippur War and the Inevitability of Surprise," International Studies Quarterly, (September, 1977) p. 21 .

these sources, code named "Fedora" and "Tophat," however, Soviet leaders were not eager to make the huge investments deemed necessary, and the U.S. would gain a definite advantage by agreeing to freeze existing levels of these weapons. President Nixon, who had been considering a unilateral cutback in chemical-biological weapons anyway, announced accordingly, on November 25, 1969, that the U.S. was ending production of chemical-biological weapons in the hope that the Soviet Union would follow suit. Shortly thereafter, Fedora and Tophat reported to the FBI that the Soviet crash program had been abandoned. Four years later, intelligence analysts discovered from equipment captured in the 1973 Yom Kippur war that "the United States was unquestionably behind the Soviet Union in chemical warfare," reports Epstein. By working backward from the state of development of this equipment, it became evident that the Soviets had been well ahead of the U.S. before 1969 as well. The FBI later admitted that Fedora and Tophat had been working under KGB control all along and feeding the U.S. misleading information.<sup>108</sup>

The use of such clandestine methods for purposes of strategic deception, while indeed relevant to the discussion, nevertheless falls into a separate category

---

<sup>108</sup>Epstein, pp. 22-23.

from the day to day factors that distinguish open and closed societies. More significant in the context of this project is that a "breakthrough" in UN efforts to control the development of such weapons was also said to have occurred on March 30, 1971 -- when the Soviets submitted a draft proposal to constrain biological weapons and toxins. On December 16, the General Assembly approved the resulting resolution by a vote of 110 to 0. Nixon submitted the agreement to the Senate on April 10, 1972, calling it "the first international agreement since World War II to provide for the actual elimination of an entire class of weapons from the arsenals of nations." Two years later it was unanimously approved by the Senate.<sup>109</sup> As one author has described treatment of the compliance issue:

The parties did not consider it essential to require verification provisions beyond a pledge to cooperate with any investigation the United Nations Security Council may initiate on the basis of a complaint from a party and an undertaking to facilitate scientific exchange in bacteriological and related fields. Still, the renunciation of biological warfare by the United States and the entry into force of the convention would

---

<sup>109</sup>Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Arms Control and Disarmament Agreements (Washington, D.C.: United States Arms Control and Disarmament Agency, 1980), pp. 121-22.

seem to make biological warfare extremely unlikely.<sup>110</sup>

In itself, the Agreement and its compliance provisions would come back to haunt the U.S. government as its officially alleged Soviet violations brought the efficacy of the entire arms control process into question. This will be discussed in more detail in Part III of this project. The case is discussed here as evidence that carefully orchestrated Soviet deception had provided the underpinning upon which the U.S. confidently terminated its own weapons production programs and entered UN negotiations in the first place.

Vladimir Bukovsky begins his discussion of the 1975 Helsinki Agreements with the following observation concerning arms control during detente:

The West had grown so exhausted by the constant tension of the previous decades that the temptation to relax, when offered by the Kremlin, was simply irresistible.<sup>111</sup>

If Bukovsky's hypothesis, according to which the open democracies of the West had "no choice" about such a relaxation, is correct, then the governments of these countries were simply trying to get what little they

---

<sup>110</sup>Matthew Meselson, "What Policy for Nerve Gas?" in William H. Kincade and Jeffrey D. Porro, Eds., Negotiating Security; An Arms Control Reader (Washington, D.C.: The Carnegie Endowment for Peace, 1979), p. 206.

<sup>111</sup>Bukovsky, p. 28.

AD-A135 439

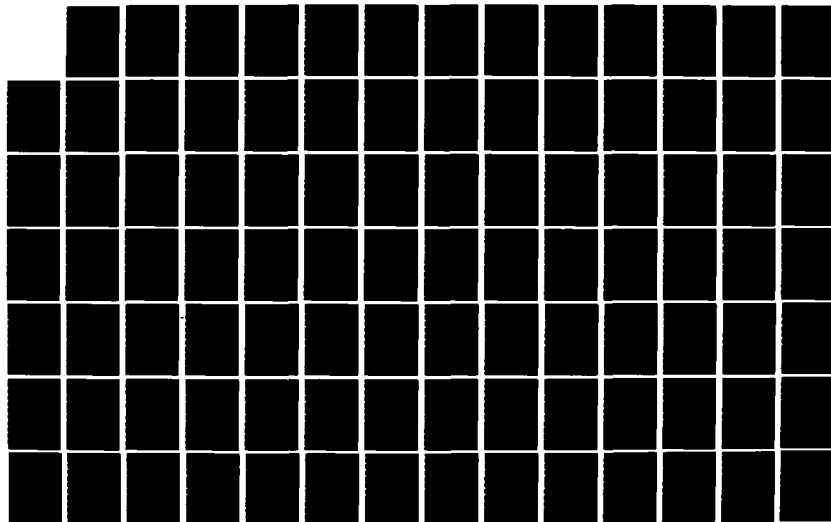
ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

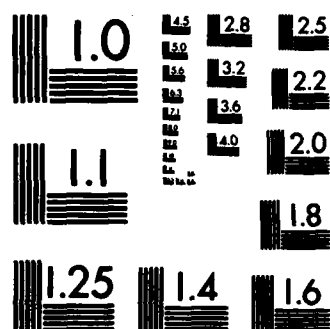
2/6

UNCLASSIFIED

F/G 5/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

could from the Helsinki accords by insisting that human rights agreements must be observed within the Communist bloc. The idea, according to Bukovsky, "was to force the internal relaxation of the Soviet regime and so make it more open and less aggressive."<sup>112</sup> In exchange, the West gave the Soviets practically all that Brezhnev had demanded in his 24th Party Congress "Peace Program" of 1971. Thus, says Bukovsky:

'The inviolability of the postwar frontiers in Europe' -- that is, the legitimization of the Soviet territorial annexations between 1939 and 1948 -- as well as a substantial increase in economic, scientific, and cultural cooperation were solemnly granted.... Earlier a separate treaty had perpetuated the artificial division of Germany without even a reference to the Berlin Wall.<sup>113</sup>

Numerous subsequent happenings have made a mockery of this Agreement which nevertheless institutionalized Soviet domination of East European nations. Well publicized stories of hunger strikers through the Spring and Summer of 1982 dramatized violation of the Soviet pledge to "examine favorably and on the basis of humanitarian considerations" the visa requests of "persons who have decided to marry a citizen from

---

<sup>112</sup>Ibid.

<sup>113</sup>Ibid.

another participating state."<sup>114</sup> Additionally, the Helsinki Watch Group was subjected to constant harassment from its founding in 1976 by a handful of Soviet citizens until its dissolution in September, 1982 when repression had grown to intolerable proportions. Although the Helsinki Final Act guaranteed nothing that was not already promised by the Soviet Constitution, the brief history of the group stands as testimony to the thoroughly cynical attitude of Soviet leaders toward detente. Nevertheless, the Western press continues to encourage closer East-West commercial ties as a means of "influencing" Soviet authorities. As the Christian Science Monitor argued after the watch group was dissolved, for example:

Experience has shown that in a better East-West climate quiet diplomacy can be used behind the scenes to soften Soviet policy to some extent (as in the case of Jewish emigration) and at least to alleviate the worst cases of oppression. All the more reason, therefore, to try to improve East-West relations.

According to this logic, the U.S. should provide more and more of detente's benefits as the Soviets increase the repression of their citizens -- because that is the only way effectively to influence the authorities of a

---

<sup>114</sup>Robert Gillette, "Soviets Ignoring Pleas, Final Hunger Striker Says," Los Angeles Times, June 27, 1982, p. 10.

closed political system. Sometimes it is difficult to distinguish whether the U.S. is the victim or the perpetrator of its own deception.

The closed society is not a new phenomenon in international relations, but as ACDA has pointed out:

Where the intentions of the other party are in doubt, or are assumed to be unfriendly, secrecy has a destabilizing effect on the military balance.

Secrecy can be especially troublesome when a relationship is based on negotiated security constraints. The fact that the Soviet Union is both closed and deceptive renders such a relationship nearly prohibitive. So antithetical is this state of affairs to stability in the modern age that Bertrand Russell, carrying empiricism to its logical extreme, once suggested that the U.S. should insist, under threat of nuclear attack, that the Soviet Union become an open society. It is more than a bit anachronistic that in the waning years of the twentieth century, the most powerful military organization on earth can function in such great secrecy that practically nothing is known about how the Politburo operates, or that in 1982 the West could be uncertain as to whether Leonid Brezhnev was dead or simply vacationing for the Winter. But as we will see in the following chapter, the closed society is only part of the problem. That it is a

seemingly insurmountable one has implications for global stability and American security, but only when treated in a business as usual manner by the relatively open West.

## CHAPTER III

### THE OPEN SOCIETY

The U.S. too is constituted as a federal republic; but beyond this purely formal similarity there exists little comparability between Soviet and American approaches to government. This chapter will illustrate, for example, that the U.S. publishes more national defense related information in open sources -- and reliable information -- than any combination of its known intelligence methods would normally be able to discover about the more cloistered Soviet system. Unlike the Politburo, the American government is specifically designed to minimize public policies without public approval. Openness in government is encouraged, for example, by a pluralistic set of legislative procedures whereby the authorization and appropriation of funds are debated separately and publicly. A tradition of tension colors relations between the journalistic media and the government thus cautioning decision makers who must answer regularly to a skeptical electorate. A legal system that is directly tied not only to Court precedent but also to a

two century-old Constitution, acts to protect the public trust and can incriminate the highest officials of the government if such trust is violated. Superimposed over all of these traditions is a well developed two party process and a rigid system of checks and balances, both of which operate in adversarial environments.

1. Traditional Openness.

Although both the U.S. and U.S.S.R. have evolved over the years to encompass a variety of races, religions, and nationalities, the U.S. has normally engulfed these diverse groups through the choices of its immigrant population. Russia, beginning with the Ukraine, Belorussia, Georgia, Armenia, and Azerbaijan between 1917 and 1923, assembled her modern empire primarily through the persuasive powers of the Red Army. It is somewhat ironic that the Western tradition of popular sovereignty traces its origins to the Magna Carta of 1215, because the Russian tradition of totalitarianism can be traced to the Tartar yoke at roughly the same time in history.<sup>1</sup> Some have argued that similar distinctions between the two states'

---

<sup>1</sup>As noted by Richard Nixon, The Real War (New York: Warner Books, Inc., 1980), p. 50.

postwar foreign policies are the modern progeny of these conflicting origins.<sup>2</sup>

Consistent with the liberal ideals of Rousseau, Locke, Jefferson, Madison, and, more recently, John Dewey, the American style of democracy is laced with moral and ethical principles relating legitimate public policies with an informed electorate. According to this perspective, the state is not merely an instrument of the public (or the "general will"), but is constantly being reshaped by the public's evolving values.<sup>3</sup> The repugnance of any restriction on governmental openness is thus deeply ingrained in American Constitutional history. As James Madison understood it:

A popular Government, without popular information, or the means of acquiring it, is but a prologue to a Farce or a Tragedy; or perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors must arm themselves with the power which knowledge gives.<sup>4</sup>

---

<sup>2</sup>See for example, John Spanier, American Foreign Policy Since World War II, 6th edition, (New York: Fredrick A. Praeger, 1973), p. 8.

<sup>3</sup>William T. Blum, Theories of the Political System (Englewood Cliffs: Prentice-Hall, Inc., 1971), p. 413. See also John Dewey, The Public and Its Problems (New York: Holt, Rinehart & Winston, Inc., 1927), p. 148.

<sup>4</sup>Letter from James Madison to W. T. Barry (August 4, 1822) printed in The Writings of James Madison, ed. by Gaillard Hunt (New York: Putnam's Sons, 1906-1910), vol 9, p. 103.

One of the great ironies in constitutional history, of course, is the paradox of Thomas Jefferson, whose disdain for the press was surpassed only by the vigor with which he defended its rights. Jefferson once observed, for example, "the putrid state into which our newspapers have passed, and the malignity, the vulgarity, and mendacious spirit of those who write them...."<sup>5</sup> He then went on to argue that "It is...an evil for which there is no remedy, our liberty depends on the freedom of the press, and that cannot be limited without being lost."<sup>6</sup> Like Madison, Jefferson was convinced from personal experience that whatever benefits there may be in governmental secrecy must pale by comparison with its costs -- whether the issue was the security of the nation or the dignity of the individual. Government, being what Jefferson considered but a necessary evil in the first place, must therefore remain accountable to the public under any and all conditions.

This unarguably idealistic understanding of government has manifested itself in a sometimes naive

---

<sup>5</sup>Letter from Thomas Jefferson to Dr. J. Currie (1786) in The Writings of Thomas Jefferson, ed. by Andrew Lipscomb and Albert E. Bergh (Washington, D.C., 1904-1905), vol 15, p. 214.

<sup>6</sup>Ibid.

populism from Andrew Jackson to Jimmy Carter, and in such vacillatory foreign policies as those of Grover Cleveland and Woodrow Wilson. In the tradition of the Enlightenment and the French Revolution, this optimistic logic typically attributes mankind's failure to achieve "the rational good" to one of two possibilities: politicians are either too ignorant to comprehend that good or too wicked to pursue it.<sup>7</sup> As quoted by E. H. Carr, the ignorance hypothesis is well articulated by Alfred Zimmermann:

The Obstacle in our path...is not in the moral sphere, but in the intellectual.... It is not because men are ill disposed that they cannot be educated into world social consciousness. It is because they -- let us be honest and say 'we' -- are beings of conservative temper and limited intelligence.<sup>8</sup>

A veritable barrage of realist criticism has been leveled at this premise from the interwar years to the present. But the conviction that political failures are attributable to insufficient public "consciousness" remains central to the American variant of democracy. It is an assumption that has been applied to foreign as well as domestic policy issues, in war as well as peace.

It is somewhat surprising to many that despite

---

<sup>7</sup>E. H. Carr, The Twenty Years' Crisis 1919-1939 (New York: Harper & Row, 1964), p. 39.

<sup>8</sup>Ibid.

strong support for freedoms of expression among the nation's founding fathers, and despite the well established importance of an informed electorate, neither the Bill of Rights nor the Constitution itself guarantees the public's "right to know" when it comes to official governmental information. Although a good deal of litigation has aimed at vindicating that right as implicit in the First Amendment, federal legislation on the subject is a politically potent force unique to the post Vietnam and post Watergate eras.<sup>9</sup> Until the 1967 Freedom of Information (FOI) Act took effect, public access to federal documents was restricted by a "need to know" policy stemming from the 1789 "housekeeping law," which gave federal agencies the right to withhold information from the public.<sup>10</sup> Furthermore, a provision of the Administrative Procedure Act of 1946, while encouraging the publication of official records, allowed agencies to limit such access "in the public interest" or "for good cause found."<sup>11</sup>

---

<sup>9</sup>For a careful review of such litigation, see David M. Obvien, The Public's Right to Know (New York: Praeger Publishers, 1981), p. 2.

<sup>10</sup>L. G. Sherick, How to Use the Freedom of Information Act (New York: Arco Publishing Co., Inc., 1978), p. 2.

<sup>11</sup>Ibid.

Even the term "right to know" was unheard of until Kent Cooper, then Director of the Associated Press, began popularizing its usage in the 1940s. Cooper had elaborated on Jefferson by arguing that "there cannot be political freedom in one country, or in the world, without respect for the 'right to know.'"<sup>12</sup> Cooper therefore concluded that the First Amendment should be rewritten as "Congress shall make no law...abridging the right to know through oral or printed word or any other means of communicating ideas or intelligence."<sup>13</sup> Though unsuccessful in amending the Constitution, Cooper's choice of words was to prove prophetic over the ensuing decades. The American Society of Newspaper Publishers' Committee on Freedom of Information, and its Executive Director James Russell Wiggins, picked up Cooper's banner in the 1950s. Wiggins' 1956 Freedom or Secrecy spelled out the public's right to know as a composite of principles which the text went on to specify.<sup>14</sup> His Committee's 1957 "Declaration of Principles," following these broad guidelines, then became the focal point of political dialogue over the

---

<sup>12</sup>Kent Cooper, The Right to Know (New York: Farrar, Straus and Cudahy, 1956), p. 16.

<sup>13</sup>Ibid.

<sup>14</sup>James R. Wiggins, Freedom or Secrecy (New York: Oxford University Press, 1956), pp. 3-4.

next ten years.<sup>15</sup>

Augmented by intensified media opposition to the Vietnam war, this dialogue culminated when the FOI Act (PL 89-487) took effect on July 4, 1967. Responding to perceptions that wrong information relevant to Vietnam was being reported by the Government (the ignorance hypothesis), the new law required that federal documents, opinions, records, policy statements, and staff manuals be made available upon citizens' request unless exempted within one of nine categories.<sup>16</sup> For the first time in American history, citizens not only had the right to sue the government for official information, but the burden of proof would be on the government to explain denials rather than on the citizen to establish his need to know. Nevertheless, in a 1972 progress report on the new law, a Subcommittee of the House Foreign Operations and Government Information Committee concluded that the Act had been "hindered by five years of footdragging" by the federal bureaucracy.<sup>17</sup> The panel went on to recommend legislative and administrative remedies.

---

<sup>15</sup>O'Brien, p. 3.

<sup>16</sup>"House Passes Bill to Stiffen Freedom of Information Act," Congressional Quarterly Weekly, 32 (March 23, 1974), p. 775.

<sup>17</sup>Ibid.

Just as Vietnam era perceptions of information manipulation had set the stage for the 1967 Act, Watergate era images of information suppression generated support for a more stringent version of the FOI Act -- designed to eliminate "footdragging" -- in 1974. As Carl Gershman has astutely observed, Watergate did for "national security" what Vietnam had done for "containment," namely to make it an object of derisive satire.<sup>18</sup> Thus the 1967 provision exempting "properly classified national defense or foreign policy information"<sup>19</sup> from the Act was brought into question between 1972 and 1974. The 1974 version therefore authorized courts to examine the contents of classified documents in camera to determine whether or not they should be withheld. Accordingly courts would be allowed to pass judgment as to the "reasonableness or propriety of the determination to classify records." The Defense Department objected to the change on grounds that courts were not qualified to review

---

<sup>18</sup>Carl Gershman, "The Rise and Fall of the New Foreign Policy Establishment," Commentary, July, 1980, p. 16.

<sup>19</sup>Morton H. Halperin, "Freedom of Information Act Title 5, U.S. Code Section 552," Litigation Under the Amended Federal Freedom of Information Act, ed. by Christine M. Marwick (Washington, D.C.: The Project on National Security and Civil Liberties of the American Civil Liberties Union Foundation, 1976), p. 7.

decisions on the classification of documents. In what was to become the basis for President Ford's veto of the bill, the government would thus be required to prove that contested national security materials were properly classified in whole or in part, or else release them.<sup>20</sup>

But relaxation of the national security exemption was only one of the new frontiers in openness established by the 1974 version of the FOI Act. Other revisions included the following:<sup>21</sup>

1. Federal agencies were directed to publish indices of opinions, policy statements, and staff manuals -- and to furnish these indices upon request for the cost of publication.
2. Agencies were required to honor requests for information not listed in indices as well. Files would therefore have to be researched in any given subject area in lieu of refusing a request on the basis of imprecise identification of documents.
3. Time limits: requests had to be answered in ten working days; agencies could take another ten days in unusual circumstances. Otherwise, FOI requests would take priority over anything else in which the agency may be involved at the time.
4. Courts could order the government to pay attorney fees and court costs for persons

---

<sup>20</sup>"Congress Clears Freedom of Information Bill," Congressional Quarterly Weekly, 32 (November 23, 1974), p. 3151.

<sup>21</sup>Ibid. I have paraphrased for purposes of brevity.

who win suits against the government under the Act.

5. Individual employees, rather than just the agency that employed them, could be sued personally and subjected to disciplinary action if found to have denied information improperly.
6. Annual reports to Congress were required to explain all decisions to withhold information.

When President Ford vetoed the bill on grounds that it would jeopardize the secrecy of national security related information, the post-Watergate rhetoric became particularly virulent. Edward M. Kennedy, urging his fellow senators to override the veto, characterized the legislation as "one of the positive legacies of the Watergate era," and encouraged them to stand up "against a hostile bureaucracy."<sup>22</sup> Elaborating on Kennedy's support, Edmund S. Muskie lamented that "the same President who began his administration with a promise of openness sides with the secret-makers on the first big test of that promise."<sup>23</sup> As if references to the "secret-makers" and the "hostile bureaucracy" were not sufficient overstatements, Representative John E. Moss (D. Calif.)

---

<sup>22</sup>"Congress Gets Ford Request, Overrides Vetoes," Congressional Quarterly Weekly, 32 (November 23, 1974), p. 3151.

<sup>23</sup>Ibid.

urged the House to override the veto because "a democracy without a free and truthful flow of information from government to its people is nothing more than an elected dictatorship."<sup>24</sup> Evidently in agreement that an America without a stronger Freedom of Information Act was the equivalent of an elected dictatorship, one author has argued that such laws are necessary because bureaucrats who are "adroit in their serpentine maneuverings -- via propaganda, secrecy, distortions, omissions and outright lies -- can [otherwise] hold the reins of government...."<sup>25</sup>

These characterizations are fascinating in retrospect, not simply because their hysteria manifests the vengeance of liberal legislators of that era, but also because the new legislation would enable further penetration of what was already the most open society in history. Completely aside from formally required freedoms of information, the following sources have long been available to interested observers in the U.S.:<sup>26</sup>

---

<sup>24</sup>Sherick, p. 5.

<sup>25</sup>Ibid.

<sup>26</sup>Paraphrased from Tad Szulc, "The KGB in Washington," The Washington Post Magazine, March 2, 1980, pp. 15-16.

1. Daily Newspapers: Major papers, such as the New York Times, the Washington Post, the Baltimore Sun, and the Washington Star have very well informed writers on military and strategic affairs. "Nuggets" of data in their stories, when associated with information from other overt and covert sources, often fill gaps in otherwise difficult intelligence puzzles. The Wall Street Journal, for example, provides regular updates about defense contracts awarded by the Army, Navy, and Air Force along with the amounts being spent in most cases.
2. Trade Publications: Aviation Week and Space Technology, for example, is in translation and enroute to Moscow immediately upon its publication. This and other specialty magazines report industry's breakthroughs in missiles, space, electronics, and avionics. Technological priorities of the present and future are thereby revealed.
3. Soviet "diplomats" attend academic conferences and congressional committee hearings on defense issues where trained listeners can acquire an excellent sense of detailed thinking on defense. The Soviet Embassy also buys massive quantities of congressional hearings and reports from the Government Printing Office. These include such detailed annual packages as the Report of the Secretary of Defense and the JCS Posture Statement.
4. Opinions, conclusions, and evaluations of American policies are also available from journalists, well informed academicians, and even from government officials. For this reason, Soviet officials carry on active social lives and are common visitors at expensive Washington restaurants. "Political intelligence," from these "insiders" is often far more valuable than official secrets.

Such was the state of congressional attitudes in 1974 that a two hundred year history of openness and the landmark 1967 legislation had come to be regarded as inadequate. In November, 1974, Congress therefore overrode the President's veto of the bill -- the Senate by a three vote margin, the House overwhelmingly -- and the 1974 bill became law. The general reaction of congressmen and senators toward the President's national security concerns was perhaps best articulated by L.G. Sherick:

I don't worry that KGB agents will use [the FOI Act] to get national security or defense secrets. Fears such as these are baseless, as it seems inconceivable that our courts would ever demand that the agencies release information that could in any way endanger...the defense of our country.<sup>27</sup>

Sherick may be correct in his presumption that courts would strive to adjudicate each separate case correctly on its own merits. But according to the Deputy CIA Director's 1979 Senate testimony, this has not been the problem. "It is possible," said Frank Carlucci, "that a sophisticated foreign intelligence service could piece together, from bits and pieces of released information, a larger picture regarding a particular intelligence activity or operation."<sup>28</sup>

---

<sup>27</sup>Sherick, p. 4.

<sup>28</sup>As quoted by Szulc, pp. 15-6.

Moreover, according to Tad Szulc, the CIA is convinced that a great many FOI requests come directly or indirectly from KGB agents in the U.S. as well as abroad. The detrimental effects of such a practice would be at least twofold. On the one hand much otherwise unattainable U.S. national security information is made available to the U.S.S.R. -- thereby simplifying Soviet intelligence work. On the other hand, the ready availability of such information can foreclose the recruitment of American agents abroad -- thereby complicating American intelligence work -- because of the possibility of inadvertent disclosure of their identities.<sup>29</sup>

It is in the nature of espionage work, of course, that nobody outside the Soviet Union knows how many KGB agents operate in the U.S. What is unique in the case of the U.S., however, because of how open American society is, is that nobody even knows how many intelligence agents operate with diplomatic immunity through the Soviet Embassy or the UN. Szulc reports that such agents are estimated to number "many hundreds" -- a quantity of sufficient strength to assemble a great variety of "bits and pieces" using unclassified sources in conjunction with FOI. Thus the

---

<sup>29</sup>Ibid., p. 15.

practice of intelligence is no longer a purely "cloak and dagger" operation when the U.S. is its "target."<sup>30</sup> The CIA itself now publishes detailed instructions advertising phone numbers, mailing addresses, and fees for the acquisition of individual publications, tailored services, subscriptions, publications from prior years, maps, or simply "all CIA publications."<sup>31</sup> The American tradition of openness is a blessing and a curse. Vulnerabilities created by openness emanate from the same freedoms that Americans have cherished most for over two centuries. But the "sunshine" traditions discussed in this section are but a part of the price that is paid for these freedoms.

## 2. Nontraditional Openness

The grossly asymmetric quantities of unclassified information that are legally available within the U.S. -- the product of traditional American openness -- are but the tip of a massive iceberg. Beyond traditional openness -- information with which the U.S.

---

<sup>30</sup>Ibid., p. 14.

<sup>31</sup>See for example Intelligence, The Acme of Skill (Washington, D.C.: Central Intelligence Agency Office of Public Affairs, 1980), p. 29. This brochure also explains that hard copy and microfilm services are available from the Library of Congress, that "rush handling" is available, and that payments may be made by American Express, check, or money order.

government parts willingly -- Western political systems are incomparably more vulnerable to covert espionage and counterespionage as well. Aside from maps, brochures, and analyses available upon request from the CIA, for example, William Harris has said that the American intelligence community must always operate on the assumption that it has been at least partially penetrated by foreign agents.<sup>32</sup> Harris' reference to the problem of "moles" is a well known one within Western intelligence agencies, even though as Richard Helms has said, "no intelligence service can function unless it has secret sources."<sup>33</sup> Jay Epstein of The New York Times has stated the problem more explicitly.

The CIA has cogent evidence in its files testifying in no uncertain terms to the capacity of Soviet intelligence to recruit and sustain moles in highly sensitive positions in American and other Western intelligence services.<sup>34</sup>

In exploiting this largely systemic advantage, the KGB is believed to pay a majority of attention to younger recruiting targets such as junior officers in sensitive military specialities or intelligence services. The payoff for success in these endeavors

---

<sup>32</sup>As quoted by Edward Jay Epstein, "The Spy War," New York Times Magazines, September 28, 1980, p. 14.

<sup>33</sup>Ibid., p. 17.

<sup>34</sup>Ibid., p. 10.

may be a generation downstream, but the effort has now been in progress for several generations. Aside from the long term payoff, however, several lower level recruits in the CIA have paid immediate dividends for the KGB. Jack R. Dunlap, who was hired by the NSA in 1958 as a General Officer's personal driver, used his car's "no inspection" status for the next five years to smuggle documents from the Agency's premises.<sup>35</sup> In 1978, a 23 year-old watch officer, William Kampiles, sold the operating manual for the extremely advanced KH-11 reconnaissance satellite (for \$3000) to the KGB.<sup>36</sup> The manual, which described the characteristics, capabilities, and limitations of the satellite, revealed how the Soviets could avoid detection with regard to current information in a time of crisis, with the terms of SALT agreements, or with other specific nuclear and military programs.

Disloyalty itself, of course, may be no more prevalent in the U.S. than in the U.S.S.R., but it is far more easily exploited in open than in closed societies. Classical intelligence and

---

<sup>35</sup>Ibid., p. 13.

<sup>36</sup>James Ott, "Espionage Trial Highlights CIA Problems," Aviation Week and Space Technology, November 27, 1978, pp. 21-23.

counterintelligence activities, however, are only a small part of the espionage problem faced by today's advanced technological societies. FBI Director William Webster has said several times that the primary target of foreign spies in the U.S. is not so much the CIA itself as the technological discoveries of American industry. One such Soviet spy, who appeared anonymously on ABC's "World News Tonight" on April 12, 1982, warned Americans to "be wary" about this problem. This individual explained, for example, that by travelling under an assumed name, attending trade shows, industrial seminars and conferences, and making use of his diplomatic immunity, he was able to score innumerable successes. These included shipping embargoed products to Moscow via diplomatic pouch and touring Vandenberg Air Force Base with diplomatic license plates. Acting on orders "directly from the KGB," this defector said that thirty to forty percent of Soviet "diplomats" are technological spies and that their well know functions have become "somewhat of a joke" throughout Washington.

Several recent incidents lend credence to this anonymous defector's story. Otto Attila Gilbert, who became an American citizen in 1962 by pretending to be a Hungarian refugee, was charged in 1982 with spying on

the U.S. on behalf of the Hungarian Military Intelligence Service.<sup>37</sup> Gilbert's fairly typical method, bribing another Hungarian refugee who happened to be a U.S. Army warrant officer in a sensitive position, is a particularly problematical one for the American "melting pot." California, where technological advances push the state of the art in several defense related industries, has a constantly growing population of which 14.8 percent is currently foreign born.<sup>38</sup> The State's population, moreover, is already more than one-tenth that of the entire U.S. FBI Director Webster, who called the Gilbert case "merely the tip of the iceberg," indicated that the Army warrant officer had been offered \$100,000 during a trip to his native Budapest in 1977, "to obtain classified documents and information related to U.S. weapon systems, troop deployment, cryptographic systems and military plans and information."<sup>39</sup> Since this particular individual promptly reported the incident to his American superiors, no classified documents were

---

<sup>37</sup>"Hungarian Charged With Spying After Allegedly Buying Secret U.S. Documents," Los Angeles Times, April 20, 1982, p. 5.

<sup>38</sup>U.S. Census Bureau 1980 figures as reported in the Los Angeles Times, April 20, 1982, p. 1.

<sup>39</sup>Ibid.

transmitted abroad according to the FBI.

Such was not the outcome, however, in the case of Hughes Aircraft engineer William H. Bell, who sold "over 20 highly classified reports" to Polish intelligence agent Marion Zacharski.<sup>40</sup> A 1982 CIA report on this case, declassified from testimony by the Agency's Deputy Director Bobby R. Inman, said that documents delivered by Bell to the Poles covered: the "look-down, shoot-down" F-15 radar system, an all weather radar system for tanks, the Phoenix air-to-air missile designed for the Navy's F-14 (designed to combat the Soviet Backfire bomber), a shipborne surveillance radar, the Patriot surface-to-air missile, a "towed-array" sonar system for antisubmarine warfare, the improved Hawk surface-to-air missile, and a NATO air-defense system. Particularly troublesome, however, was Bell's compromise of the "quiet radar system" for the B-1 and Stealth Bombers. The information not only jeopardized existing and advanced American and NATO weapons, but will save Poland and the Soviet Union "hundreds of millions of dollars in research and development efforts" on comparable weapons for

---

<sup>40</sup>Soviet Acquisition of Western Technology (Washington, D.C.: Central Intelligence Agency, 1982). See also "Stealth Secrets Sold to Poles, CIA Confirms," Los Angeles Times, April 29, 1982, p. 11.

themselves and on countermeasures to defeat the U.S. systems.<sup>41</sup>

The same CIA report explained that since the 1930s the Soviets have spent vast sums of money and manpower to obtain Western technology for their own military uses and to upgrade their military manufacturing technology. Combining "legal and illegal means," the report said, and in large part by using Eastern European intelligence agents, the Soviets have achieved numerous successes. Dummy Western European firms, for example, have obtained "some of the most advanced technologies in the West, including computer, micro electronic, nuclear and chemical technologies."<sup>42</sup> Zacharski, who had posed as a Polish businessman, was able to deal directly with Bell, who was known to have financial troubles. The CIA report described today's Soviet intelligence effort toward industrial technology as a "massive, well planned, and well managed...national level program approved at the highest party and government levels."<sup>43</sup>

Of course the most widely publicized of the recent Soviet successes in penetrating American industry has

---

<sup>41</sup>Ibid.

<sup>42</sup>Ibid.

<sup>43</sup>Ibid.

been the 1975 Rhyolite compromise by TRW employee John Boyce and his friend Andrew Lee. In addition to the celebrated prison escape and subsequent recapture of Boyce, Robert Lindsey's The Falcon and the Snowman<sup>44</sup> explained the plight of these two fairly typical young Americans in highly readable terms to a vast audience of laymen. Lindsey's book documents both the quiet desperation that lured these men into treason, and the remarkably simple ways in which foreign agents can obtain critical American national security secrets. Boyce was granted access to some of TRW's most highly classified operations after his father had helped him get the job through his own "old boys network" as a former FBI agent. Lee, a "successful" drug dealer, shared Boyce's interest in the art of falconry as the two grew up together. Upon learning the value of his friend's job and the marketability of the technology involved, Lee simply went to the Soviet Embassy in Mexico City and told a guard that he and his friend had information for sale.

As in the other cases discussed in this section, the cost of the Rhyolite bribe was totally out of proportion to the value of the compromised technology.

---

<sup>44</sup>Robert Lindsey, The Falcon and the Snowman (New York: Simon and Schuster, 1979).

Over a period of roughly a year and a half, Boyce and Lee evidently received less than \$35,000 between them.<sup>45</sup> In exchange for this sum of money, Boyce is said to have provided thousands of documents while he had access to the "entire workings of the intelligence community, with daily access to intelligence communications, documents and hardware."<sup>46</sup> In particular, Rhyolite -- a space based intelligence gathering system that can monitor certain telemetry data from Soviet missile tests<sup>47</sup> -- represented a disclosure with "grave and irreparable damage to national defense."<sup>48</sup> During the public portion of the trial of Boyce, it was also disclosed that compromised documents revealed the uses of these satellites for the

---

<sup>45</sup>According to Lindsey, the FBI initially reported Lee to have received over \$13,700 (p. 240). Although Lee was supposed to be dividing the funds with Boyce, Lindsey implies (p. 125) that Lee was giving Boyce less than half share. Elsewhere (p. 260), Lindsey reports that Boyce testified to the receipt of \$15,000 from Lee and \$5000 directly from a Soviet agent.

<sup>46</sup>Ibid., p. 247. Lindsey quotes Boyce's TRW supervisor here.

<sup>47</sup>Phillip J. Klass, "U.S. Monitoring Capability Impaired," Aviation Week and Space Technology, May 14, 1979, p. 139.

<sup>48</sup>Lindsey, p. 247.

covert communications between the CIA and its agents abroad.<sup>49</sup>

Other vulnerabilities that are unique to the open society are innumerable. In 1972, the Soviets sent teams of purchasing agents to buy massive quantities of wheat in small lots at prices subsidized by the U.S. government.<sup>50</sup> This was possible because the Soviets could conceal their own wheat and maize shortages, while exploiting the decentralized authority structure of American agricultural markets. Nor are the private communications of American citizens or businesses beyond the reach of Soviet probings. As the 1975 Rockefeller Commission on CIA activities revealed, the Soviets "can monitor and record thousands of private telephone conversations."<sup>51</sup> News stories subsequently confirmed that the Soviets not only can, but do monitor "millions" of domestic American phone conversations, including 100,000 annually in Washington.<sup>52</sup> In a 1977 news conference, President Carter acknowledged that "within the last number of years, because of radio

---

<sup>49</sup>Lindsey, p. 288.

<sup>50</sup>Stephen Barber, "Noise Interferes," Far Eastern Economic Review, February 25, 1977, p. 28.

<sup>51</sup>David Kahn, "Cryptology Goes Public," Foreign Affairs, 58 (Fall, 1979), p. 145.

<sup>52</sup>Ibid.

transmission of telephone conversations, the intercept on a passive basis of these kinds of transmissions has become a common ability of nations to pursue."<sup>53</sup>

David Kahn explains that, while microwave signal interception is well within the capability of the U.S., this new technological fact of life is more burdensome to the American political and economic systems. Soviet telephone books are classified; only a fraction of telephone links in the U.S.S.R. use microwaves rather than land lines; and the "private sector" in the Soviet Union is the State. In the U.S, where 70 percent of all telephone toll calls travel by microwave, computers now make "individual targeting" of telephone intercepts possible.<sup>54</sup> Moreover, such intercepts are fairly easy because the intruder need not even tap the microwave beam directly:

Each relay (usually perched atop hills 25 miles apart) radiates enough energy for an eavesdropper to pick up the microwave signal five to ten miles away.<sup>55</sup>

According to a study by the Mitre Corporation, "the interceptor can make use of a number of

---

<sup>53</sup>Public Papers of the Presidents of the United States: Jimmy Carter, 1977, Vol II, (Washington, D.C.: GPO, 1978), p. 1234.

<sup>54</sup>Kahn, p. 146.

<sup>55</sup>Ibid.

innocent-appearing structures (to conceal antennae) such as apartments, houses, sheds, barns or a specially outfitted van."<sup>56</sup> Soviet diplomatic facilities, such as their San Francisco consulate, their UN mission in New York, their apartment house in New York, and their new embassy on Tunlaw Road on one of the highest hills in Washington, are specifically located and equipped so as to tap primary telephone trunk groups. Furthermore, satellites, Cuban based ground antennae, and state of the art Western computer technology greatly augment this already formidable information gathering capability.

Through the combination of overt and covert information gathering opportunities that are uniquely available within open societies, and particularly within the American society, foreign surveillance efforts can acquire vast amounts of information. In conjunction with considerable quantities of purely unclassified information discussed in the previous section, this yields to the Soviet Union an enormous advantage in measuring the quantity and quality of

---

<sup>56</sup>Mitre Corporation, McLean, Virginia, Study of Vulnerability of Electronic Communication Systems to Electronic Interception, prepared for the Office of Telecommunications Policy, January, 1977. Department of Commerce: National Technical Information Service, PB264447 and PB264448. Vol I, p. 17.

American military preparations. But such assessments of present and future hardware production, while crucial, are only part of the problem for the U.S. The U.S. has several additional political traditions that magnify the impact of openness, especially when national security is the subject of negotiations with a closed society.

### 3. Beyond Openness

When Henry L. Stimson assumed his duties as Secretary of State in 1929, he promptly ordered the closing of the Combined Cipher Bureau of the State and War Departments. In accordance with his belief that "gentlemen do not read each other's mail," Stimson was acting on a moral conviction regarding the rights of "gentlemen" to privacy in their communications. By the time he became Secretary of War during World War II, however, Stimson was no doubt pleased to discover that the Navy and War Departments, not sharing his sense of morality, had kept their code breaking capabilities intact. Stimson, who then became an avid reader of intercepted enemy message traffic, had learned that morality is not always the unambiguous guide to political decisions we would like it to be, that knowledge (especially knowledge of adversaries' warmaking intentions) is a power resource, and that

indeed gentlemen do read each other's mail. It would be impossible to estimate how many additional lives would have been lost if Stimson's sense of morality had prevailed as government policy in 1929, but an interesting exchange is said to have taken place during a 1978 conference among World War II's opposing cryptographers. "If the Allies had Ultra," a German participant reportedly inquired, "then why didn't they win the war sooner." The answer he received was to the point: "They did."<sup>57</sup>

Blindness to the 1930's threat, while costly indeed for the Western democracies, was tolerable in the long run because war industries still had time to react. Today's threat, which is measured in minutes rather than in weeks or months, is less forgiving. As one author has put it, modern technology forecloses earlier wartime strategies whereby recovery time could be purchased with "expendable" early losses.<sup>58</sup> Stimson's unwillingness to intercept "the mail" would thus be an even greater moral luxury today because the stakes of strategic unpreparedness are so much higher. The relative capacities of adversaries to "read each

---

<sup>57</sup>Kahn, p. 141.

<sup>58</sup>Harold W. Rood, Kingdoms of the Blind (Durham: Carolina Academic Press, 1980).

other's mail" and to analyze one another's political intentions is therefore far more important to their security today than ever in the past.

This obviously suggests that substantial national security risks are a price Americans are willing to pay for traditional and nontraditional openness in the modern world. It is true, of course, that a vast knowledge gap separates the open American society from the closed Soviet society, and that as a result the Soviets enjoy enormous advantages when it comes to relative power computations. But this is only part of the problem. In and of itself, this advantage can be offset by an imaginative and versatile American foreign policy. Although the gap between the open and closed societies is very real, however, it is the open society that has been morally committed to arms control. By ascribing such normative primacy to negotiated security, the U.S. not only confines its foreign policy options within the narrowest of parameters, but also limits diplomacy to the very arena in which the closed society's information advantage is most exploitable. By limiting its foreign policy to options that are so few and so obvious, the U.S. magnifies its own vulnerability as an open society while yielding the political benefits of diplomatic maneuver to an already

less predictable closed society. When combined with other self imposed constraints, such as the well established taboo against exaggerated threat assessments, these American ethical restrictions guarantee that Soviet political benefits will exceed those generated by knowledge imbalances alone.

One of the more explicit acknowledgements of this value oriented approach to foreign policy was articulated in a 1951 address to the nation by President Truman.

The buildup of the defenses of the free world is one way to security and peace. As things now stand it is the only way open to us. But there is another way to security and peace -- a way we would much prefer to take. We would prefer to see that nations cut down their armed forces on a balanced basis that would be fair to all...It may seem strange to talk about reducing armed forces and armaments when we are working so hard to build up our military strength. But there is nothing inconsistent about these two things. Both have the same aim -- the aim of security and peace. If we can't get security and peace one way, we must get it the other way.<sup>59</sup>

The statement, which was made after Eastern Europe's forcible subjugation, after the Soviet rejection of the Baruch plan, and after the invasion of South Korea, spelled out the theory of arms control that has dominated American security policy throughout the

---

<sup>59</sup>U.S. State Department Bulletin, Vol 25 (November 19, 1951), pp. 799-803.

postwar era.

In specifying the choices available to him, Truman posited what he perceived to be a clear dichotomy. On the one hand there was arms racing or a "buildup of the defenses of the free world;" on the other hand there was arms control (the preferred choice) whereby "nations cut down their armed forces on a balanced basis that would be fair to all." As if he had no choices more assertive than the "buildup of defenses," Truman's reductionism held that one or the other of these two choices would necessarily bring security and peace to the U.S. However, the President continued, the West should take the lead in pursuing the arms control option "because it is the right thing to do."<sup>60</sup> Implicitly, therefore, the choice as to which one of the two possible American security policies would prevail was a Soviet one. But as things stood, according to Truman, there was evidently no choice; the "buildup" option was "the only way open to us." Less than two months later, nevertheless, the U.S. would submit an arms control proposal before the UN Disarmament Commission that would substantively relax all of the demands the U.S. had made in earlier

---

<sup>60</sup>Ibid.

proposals.<sup>61</sup>

The idea that either arms races or arms control could produce the same outcome, but that arms control is "the right thing to do," has been a dominant theme in American foreign policy both before and since Truman's time. As recently as 1979, for example, President Carter said that SALT II was "in the final analysis . . . a moral decision."<sup>62</sup> Nor has such proselytizing been without its impact on the attitudes of the electorate. A 1982 public opinion poll indicated that three out of five Americans think the U.S. is inferior to the U.S.S.R. in intercontinental weapons, and that four out of five think the Soviets would cheat on any arms agreement if they thought they could get away with it. Nevertheless, four out of five also support the idea of an agreement to "freeze" the existing balance and believe the current administration should give the idea higher priority.<sup>63</sup>

---

<sup>61</sup>Trevor N. Dupuy and Gay M. Hammerman, eds., A Documentary History of Arms Control and Disarmament (New York: R.R. Bowker Co., 1973), p. 353.

<sup>62</sup>Martin Tolchin, "Carter Asserts U.S. Is Able to Monitor Treaty . . . Fears Alternative to Pact," New York Times, April 26, 1979, p. 41.

<sup>63</sup>Washington Post/ABC News Poll, as announced on KABC Radio, Los Angeles, April 29, 1982.

Often such polls have more to do with the wording of questions or the values of the questioner than with scientific truth, but these attitudes have long been advocated by presidents, other political leaders, and influential media messages as well. A slick paperback by a former NSC staff member, for example, is replete with catchy chapter headings such as "The Bomb That's Coming to Dinner," and "More Than You'll Ever Want to Know: The Consequences of Nuclear War," as well as a snappy closing section entitled "You Ain't Heard Nothing Yet."<sup>64</sup> These "either-or" -- "moral-immoral" characterizations of American foreign policy alternatives often posit arms control as the only ethical choice available. It is possible to achieve widespread appeal with such messages only because the U.S. is as open as it is, and yet such stark policy constraints simplify the task of foreign intelligence by limiting American diplomacy to highly predictable choices.

As a diplomatic process, arms control offers innumerable advantages to a closed society over an open one. The process of negotiation itself opens opportunities to encourage American public opinion to

---

<sup>64</sup>Roger C. Molander, and Earl A. Molander, Nuclear War, What's In It For You (New York: Pocket Books, 1982).

resist the development of new weapons. President Carter's June 1977 cancellation of the B-1 bomber, for example, was based partly on the assumption that the plane's development during negotiations would have been an act of bad faith. The Soviets, who are not susceptible to such pressures, used the breathing room provided by that decision to develop their own long range bomber, the prototype of which greatly resembles the B-1. Similarly, any effort by the U.S. to redress today's counterforce threat is promptly construed by the Soviets as either an act of bad faith from an arms control standpoint or an effort to achieve superiority. Today, for example, the Soviets often use the American arms control impulse to appeal to supporters of the nuclear freeze movement.<sup>65</sup> Seldom, however, are such appeals accompanied by any recollection of past freezes proposed by the U.S. but summarily rejected by the Soviets.

Nor does the American government persist in its pursuit of negotiated security blind to these

---

<sup>65</sup>A good example would be Brezhnev's May, 1982 address to the Communist Youth League, in which he said that successful arms control talks must "actually pursue the aim of limiting and reducing strategic armaments rather than being a cover for a continued arms race and the breakdown of existing parity." See Robert Gillette, "Arms Control: The Limits on the Soviets are Internal," Los Angeles Times, May 23, 1982, Part V, p. 2.

asymmetric consequences. On the contrary, the Reagan Administration's chief arms control negotiator, Edward Rowny, has elucidated the disparity quite clearly:

The Soviet approach to arms control has been: first, to establish their foreign policy objectives, second, to develop and deploy forces to support those objectives, and third, to use arms control to accomplish those goals. For most of the SALT experience, the United States, in contrast, has stood this pyramid on its head. Having made arms control the centerpiece of our foreign policy, we too have allowed the process unilaterally to inhibit the development and deployment of defense forces necessary to carry out our foreign policy objectives.<sup>66</sup>

Furthermore, continued Rowny:

The main fault of the process as it was carried out during SALT II, especially in its final stages, was that it concealed and even legitimized the unrelenting expansion of Soviet military power over the last decade. While a number of other factors were involved, the SALT process, as it evolved, helped make us deaf and blind to the perilous accumulation of Soviet military might.<sup>67</sup>

Nevertheless, in keeping with Truman's 1951 logic, Rowny also said:

I have been and remain committed to an arms control process which supports the objective of providing for our security at lower levels of armaments. It is essential that we

---

<sup>66</sup>U.S. Congress, Senate, Hearings before the Committee on Foreign Relations, The Nomination of Edward L. Rowny of Virginia to be U.S. Special Representative for Arms Control and Disarmament Negotiations With the Rank of Ambassador July 9, 1981, p. 11.

<sup>67</sup>Ibid.

negotiate agreements with the Soviet Union that are balanced and equal and thus serve the national security needs of the United States and our Allies. Such agreements can and should make a positive contribution to our security objectives.<sup>68</sup>

From Part One's discussion of profound distinctions between the open and closed societies in general, and between the U.S. and Soviet Union in particular, it is clear that a political chasm of major proportions exists between the traditions and objectives of the two nations. The contrast between two news items, both reported on June 13, 1982, makes this paradox particularly clear. The first, datelined New York, observed that

More than 550,000 people, probably the largest protest demonstration in America's history, packed 20 acres of Manhattan's Central Park Saturday demanding an end to the nuclear arms race.<sup>69</sup>

"We have only two choices," the actor Orson Welles explained to this audience, "life or death." Speaking to the group of parents with babies, middle-aged veterans of Vietnam era demonstrations, teenagers on roller skates, Hiroshima and Nagasaki survivors, Buddhist monks, and physicians in white lab coats, one

---

<sup>68</sup>Ibid., p. 10.

<sup>69</sup>John J. Goldman, and Doyle McManus, "Largest-Ever U.S. Rally Protests Nuclear Arms," Los Angeles Times, June 13, 1982, p. 1.

speaker demanded that "the decency of the nation be restored." Another urged her listeners not to listen to what "Reagan and his men are saying," but to "watch what they do." A group of 1000 children and "puppeteers on stilts" were reported to have led the parade up Manhattan's West Side. The most rational opposition to the rally's theme was reported to have been expressed by a "fiercely anti-communist" clergyman with 57 followers bearing the message that "the devil is behind this march."<sup>70</sup>

The second article of the same date, datelined Moscow, pointed out that

Soviet police have taken steps to suppress the country's first unofficial peace organization, disconnecting telephones of participants, detaining them and warning some that they risk criminal prosecution, members of the nine-day-old group said Saturday.<sup>71</sup>

Sergie Batovrin, a 25 year old artist and his friend Mikhail Ostrovskiy, a 26 year old dental technician -- leaders of the 11 member group -- were reportedly detained for four hours by a Moscow prosecutor who felt that their group was "provocative and anti-social." Members of this "Group for Establishing Trust between the U.S.S.R. and the U.S.A.," were told that they had

---

<sup>70</sup>Ibid.

<sup>71</sup>Robert Gillette, "Soviets Suppress New Peace Group," Los Angeles Times, June 13, 1982, p. 11.

violated a 1930 law regulating the formulation of "social organizations." "We don't tolerate shiftless people," the arresting officer had explained; "you have to have a job in this country." The group had widely advertised three telephone numbers where Western callers could reach them the day of their (clearly anticipated) arrest, but Soviet authorities had disconnected all three that morning. Police also revoked the "visiting cards" of the reporters at Batovrin's apartment and charged the group with "defaming the Soviet state and social system" -- an offense punishable by up to three years in prison. The incident has received little or no subsequent coverage in major American newspapers.

Chapter 1 examined the U.S.S.R. as not just a closed society, but one with a long tradition of diplomatic ambiguity and strategic and diplomatic deception. In Chapter 2, the American tradition of openness and the many ways in which this tradition can be exploited by a deceptive adversary were demonstrated. In spite of these conflicting political and social traditions and the intelligence gap that results, however, the U.S. remains committed to a diplomatic relationship in which reliable access to relevant information is absolutely crucial to national

security. Arms control agreements, in order to provide useful political benefits, must begin with accurate information about one another's arsenals and proceed without ambiguity about one another's compliance. As a result of the paradox we have discussed, however, the U.S. is never certain about Soviet military capability; and the Soviet Union is seldom uncertain about American national security assets. The remainder of this paper will examine various efforts undertaken over the years to resolve this disparity and to bridge the political chasm created by these fundamentally conflicting traditions.

## PART TWO

### THE BRIDGE: VERIFICATION AS A TECHNICAL SOLUTION TO A POLITICAL CHASM

Paris and Troilus, you both have said well;  
And on the cause and question now in hand  
Have glozed, but superficially; not much  
Unlike young men, whom Aristotle thought  
Unfit to hear moral philosophy.  
The reasons you allege do more conduce  
To the hot passion of distemper'd blood,  
Than to make up a free determination  
Twixt right and wrong; for pleasure and revenge  
Have ears more deaf than adders to the voice  
Of any true decision.

(Shakespeare, "Troilus and  
Cressida," Act II; Scene II)

My overall judgement, based on considerations I have set forth in my testimony in Executive Session is that during the period of the SALT II Treaty the U.S. Intelligence Community will be able to monitor most of its provisions well enough to provide confidence that the Soviets cannot gain a substantial strategic advantage through cheating. For the few provisions that we cannot monitor with this degree of confidence, I believe the Soviet perception of risks versus gains will make such cheating an unattractive option for them.

(Stansfield Turner, Director  
of the CIA, August 1, 1979)

In order for disarmament treaties to produce the same sense of national security traditionally generated

by warfighting power, rigid mutual compliance is clearly essential. Mutual compliance may or may not assure mutual security, depending of course on the terms negotiated; but the principal risk in any security agreement lies in the possibility of one nation's compliance being tied to incorrect assumptions about another nation's compliance. Under such conditions, the complying nation accrues all of the costs and risks of arms control but none of its portended benefits while the reverse is true for the noncomplying participant. Furthermore, even mutual compliance provides few security benefits unless nations know it actually to be in progress, and not simply an illusory product of wishful thinking. National security is not loosely submitted to negotiations with political adversaries in the first place, and thus cannot be assumed or taken for granted. Lingering uncertainties about the compliance question, whether valid or not, therefore represent security risks to any nation that faithfully complies with disarmament agreements.

States' access to sound information about one another's compliance will obviously be the measure of their confidence in an agreement's efficacy, and will therefore measure their relative security risks as

well. As such, it is particularly ironic, given the knowledge gap discussed in Part I, that the U.S. would play the role of demandeur throughout postwar efforts toward nuclear arms control. Explanations of this paradox obviously go beyond the "ethic" discussed in the previous chapter, although such normative influence on American thinking cannot be ignored. In addition to this variant of traditional idealism associating nuclear disarmament with a natural harmony of interests among nations, the advent of nuclear weapons was also perceived to have severed the traditional relationship between politics and war. Bernard Brodie's 1946 The Absolute Weapon, for example, dismissed all traditional relevance formerly attributed to weaponry:

Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.<sup>1</sup>

The operational realities of war were thereby said to have coincided with what was already considered "the right thing to do."

Furthermore, the joint emergence of nuclear weapons in military arsenals, along with an international organization representing all the world's states, seemed to have preordained a nuclear

---

<sup>1</sup>Bernard Brodie, ed., The Absolute Weapon (New York: Harcourt, Brace, 1946), p. 76.

disarmament mission for the UN. As the Arms Control and Disarmament Agency has said it:

The Charter of the United Nations was signed at San Francisco on June 26, 1945; on August 6, a new weapon exploded over Hiroshima. Its stupendous power, shattering old concepts of war and weaponry, imposed new urgencies and demanded new perspectives on international efforts to control armaments.<sup>2</sup>

Consistent with the American understanding of peace and war as disjointed segments of reality, high policy in the U.S. thus came to be associated with the effort to institutionalize perpetual peace. Opposing this desirable objective, however, was an antithetical set of norms supported by the vast resources and inflexible ideological commitments of the U.S.S.R. The American hypothesis of concord and peace as achievable international conditions faced an antithesis that postulated war as an historical necessity enmeshed in the very fabric of society. Far from agreeing with American assumptions about superficial causes of conflict which must be urgently rectified by arms control, the Soviet Union, according to George Kennan, was "under no ideological compulsion to accomplish its purposes in a hurry," and could "afford to look to a

---

<sup>2</sup>U.S. Arms Control and Disarmament Agency, Arms Control and Disarmament Agreements, Texts and History of Negotiations, Pub 77, February 1975, p. 5.

duel of infinite duration."<sup>3</sup>

To contend against such staying power would have required an equivalent American willingness to persevere indefinitely. But to generate that kind of fervor among the voting populace would have required the abandonment of assumptions long held regarding peace as a bestowed condition and conflict as a deviation.<sup>4</sup> Instead of challenging this central premise, American policy makers chose to supplement their preconceptions with a world "strategy" aimed at the realization of a nonstrategic world. According to Charles Burton Marshall, postwar American foreign policy had thereby posited a malleable rather than intractable adversary, and thus aimed itself at Soviet "conversion" to pluralism and openness. Cold war tensions were to be dissipated through arms control, and negotiation was to be the mechanism by which Soviet conversion would be affected.<sup>5</sup> Therefore the "strategy" for perpetual peace would be measured not

---

<sup>3</sup>George F. Kennan (here identified as "Mr X"), "The Source of Soviet Conduct," Foreign Affairs (July, 1947), p. 574.

<sup>4</sup>Charles Burton Marshall, "U.S. Power in Transition," in Robert J. Pranger, ed., Defense and Detente (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1976), p. 48.

<sup>5</sup>Ibid.

simply by the content of agreements, but by the fact of negotiation in and of itself. Negotiations would come to represent the "process" of conversion -- a process with inherent value completely apart from whatever "product" might or might not be generated in the form of agreements.

Furthermore, there were several good reasons to hope that the Soviets would be attracted by the benefits of mutual restraint in military spending. In spite of a profound asymmetry in relevant information favoring the closed society, and in spite of widespread evidence that the Soviets would use arms control to exploit that advantage, the U.S.S.R. had also just been ravaged by a war in which it lost over 20 million of its population. If national security were the Soviets' principal objective, and if mutual restraint could produce the same outcome as arms buildups, then the economic factor by itself would seemingly drive the Soviets toward a policy approximating mutual restraint. Initially, the U.S. alone had the technology for atomic weaponry, as well as the credibility of having employed those weapons operationally. Thus an American offer of nuclear disarmament would also seem to present attractive benefits to the Soviets -- especially during the

immediate postwar years while their recovery efforts were getting underway.

Nobody could deny, nevertheless, that the Soviets were less than ideal arms control partners for the U.S. How could the West be sure that disarmament negotiations emanated from shared meanings and values? That conceptual disparities would not be exploited by the closed Soviet system? or that another Molotov - Ribentrop type surprise was not in the making? Beyond all inquiries about intentions, trust, and shared meanings, how would the West even know whether compliance itself was a mutual reality. Indeed, lingering above each of these questions was the realization that only the Soviet government would ever know the answers. Even if the Soviets were to negotiate in good faith, their cloistered society and reputation for diplomatic deception would produce an environment in which their compliance could never be comfortably assumed. The political and ideological gaps as well as the vast disparity in compliance related information would prevail in all but the most rigidly controlled environment of information sharing.

The U.S. thus faced a twofold diplomatic dilemma in the wake of World War II. On the one hand, American foreign policy was oriented toward the wholly

unprecedented objective of nuclear disarmament. On the other hand, if the U.S. were to succeed by inducing Soviet participation in a disarmament regime, an entirely new set of problems would arise around the compliance question. The first problem would prove more solvable than the second. Economic and technological conditions of 1945 were such that the U.S. could afford to be magnanimous in the give and take of the security negotiations, and thereby induce Soviet participation in disarmament discussions. The second problem was an entirely different matter, however, because the Soviets, who held the upper hand in compliance related information, would insist that the two problems be negotiated separately and on their own merits. The kind of controls needed to overcome Western uncertainty about Soviet compliance would prove too "intrusive" to be acceptable to the Soviets, but the alternative of perpetual arms competition would prove too "amoral" to be politically acceptable for the U.S. In seeking to "bridge" this gap, the U.S. would discover that all it had to trade was the standards according to which Soviet compliance would be assessed. By agreeing to compromise on such standards in order to keep the "process" alive, the U.S. would, in effect, give disarmament a coequal status with national security.

## CHAPTER IV

### FOOLPROOF COMPLIANCE CONTROLS: THE RISE AND FALL OF ON-SITE INSPECTION

Like so many other concepts in the arms control literature, "on-site inspection" (or OSI: it even has its own accepted acronym) is commonly employed without explanation as if its many usages carried a single widely understood meaning. Nothing could be further from the truth. After many years of demanding the right to inspect various Soviet facilities as a part of any negotiated security package, the U.S. basically dropped this stance after the emergence of technical monitoring devices. Today, however, demands for any nontechnical inspection rights are widely regarded as obstructionist with regard to arms control. In negotiations leading to SALT I's Interim Agreement, for example, the U.S. proposed a complete ban on MIRVed missiles with an accompanying provision for freedom to inspect one another's launcher payloads for compliance. The Soviets' rejection of this inspection provision was followed by their deployment of four new

ICBMs with sufficient throw weight to benefit inordinately from the freedom to fractionate payloads. Today, many attribute the threat posed by these new Soviet weapons to American insistence on physical inspection during SALT I negotiations. Senator Claiborne Pell, for example, has said that

...in 1970 we did propose a MIRV ban, but with the stipulation that it include on-site inspection, which at the time we knew the Soviets would not accept.... We can find no serious record, no record really, of any serious attempt by the United States to achieve a ban on MIRV's.<sup>1</sup>

The notion that the 1970 MIRV ban proposal was "not serious," simply because the U.S. knew the Soviets would not accept the accompanying provisions for inspection, stands in stark contrast with President Truman's 1950 criteria for adequate safeguards during disarmament:

The safeguards must be adequate to give immediate warning of any threatened violation. Disarmament must be policed continuously and thoroughly. It must be founded upon free and open interchange of information across national borders.<sup>2</sup>

Truman, for whom safeguards during disarmament had to

---

<sup>1</sup>U.S. Congress, Senate, Committee on Foreign Relations, Hearings on the Nomination of Edward L. Rowny, July 9 and 10, 1961, p. 40.

<sup>2</sup>Bernard G. Bechhoeffer, Postwar Negotiations for Arms Control (Washington, D.C.: The Brookings Institution, 1961), pp. 152-3. Emphasis mine.

be "foolproof," placed primary emphasis on national security and found rigid inspection provisions essential. Pell, for whom arms control compliance standards must be acceptable to the U.S.S.R. before negotiations even begin, placed greater emphasis on the "process" of negotiation and found rigid inspection requirements obstructionist. Yet both referred to "on-site inspection" and both represented the dominant perspective of the time period during which they are cited.

The meaning of OSI fluctuates not just according to its feasibility, however. The meaning of the term in the literature also varies according to what it is that may or may not be inspected, where the object of inspection is located, and what kind of access is to be afforded would be inspectors. The hypothetical license to inspect may be contingent upon prior permission from the host nation; it may be geographically restricted, or it may specifically limit the number of inspectors or "visits" or both.

Clearly then, the U.S. and Soviet Union could both favor variants of on-site inspection and still remain in total disagreement about provisions for monitoring compliance with any given agreement. Furthermore, the U.S. itself has used the "inspection" rubric in

reference to widely varying practices associated with the monitoring of treaty compliance. In some cases, such as the 1946 Baruch Plan, which the Soviets flatly rejected, inspection provisions proposed by the U.S. would have enabled a fair degree of Western confidence in Soviet compliance. In other cases, such as the 1974 Threshold Test Ban Treaty and 1976 Peaceful Nuclear Explosions Treaty, each of which the Soviet Union publicly favors, inspection provisions offer nothing whatsoever that would enhance an objective assessment of a closed society's compliance. During the thirty years that transpired between Baruch and the latter two agreements, Soviet attitudes about Western "intrusion" changed very little, but initial American demands for "foolproof" inspection of Soviet compliance changed a great deal. Nevertheless, it is the opposite interpretation that is most often cited. Leslie Gelb, for example, said in 1981:

Since Soviet-American arms control talks began in the 1950s, Moscow has resisted [inspection related] demands, and negotiations often foundered because of them. But in recent years there have been signs of a softening in the Soviet position.<sup>3</sup>

---

<sup>3</sup>Leslie H. Gelb, "U.S. Tells Soviet Any Arms Pacts Must Include On-Site Verification," New York Times, September 2, 1981. Gelb substantiates this claim using the 1976 Treaty on Peaceful Nuclear Explosions as one of two examples. The other example is the 1974 Threshold Test Ban Treaty. As of this writing, the U.S. Senate has ratified neither.

This chapter will examine the chronology of the OSI issue and demonstrate the extent to which Gelb's optimism is largely a product of his own wishful thinking.

1. Inspection in the Context of International Ownership of Nuclear Weapons.

"If we ask what the methods are by which one might control atomic energy, we find a rather small number of ideas," proclaimed J. Robert Oppenheimer in June, 1946. "I have heard of three such methods," he continued, "I wish to disparage two, not as wrong but as inadequate, and I wish to speak up for the third."<sup>4</sup> The first method that Oppenheimer wished to disparage, the "regulatory" method, involved the signing of international agreements. Since the U.S. and U.S.S.R. do not trust one another, he said, agreements would require "a system of control whereby we can find out whether these conventions are really being observed. This is usually called inspection..." Oppenheimer then succinctly described the inspection problem:

There are really two aspects to this: first you must see that no enterprises are being carried out which are not allowed: second, you must see that the allowed ones are really

---

<sup>4</sup>J. Robert Oppenheimer, "International Control of Atomic Energy," in Morton Grodzins and Eugene Rabinowitch, eds., The Atomic Age (New York: Basic Books, Inc., 1963), p. 55.

doing what they say they are doing, and not something wicked on the sly.<sup>5</sup>

Oppenheimer and those with whom he was working on the control problem felt "completely desperate" about such a "cops and robbers" scheme because

. . . it seemed to us the robbers always have the advantage and the cops are always dumb cops . . . . There is very much more than one way of going from raw material to the bomb that we know of, perhaps four or five that work today, and we are quite sure that new ones will be discovered. I'm afraid the cops would never know about the new ones, only the robbers.<sup>6</sup>

Oppenheimer's rejection of solutions involving inspection alone -- his "cops and robbers" analogy -- would be a recurrent theme over the ensuing decades. Dean Acheson<sup>7</sup> and Amrom Katz<sup>8</sup>, among others, would

---

<sup>5</sup>Ibid., p. 56.

<sup>6</sup>Ibid.

<sup>7</sup>International Control of Atomic Energy: Growth of a Policy (Washington, D.C.: U.S. Government Printing Office, 1946), p. 37. In developing the Acheson-Lilienthal Plan -- the basis for the Baruch Plan -- Acheson disparaged "the cops and robbers theory of control, because the people charged with policing the agreement...couldn't possibly know as much as those they were trying to police."

<sup>8</sup>Katz' work on the compliance question is probably the most insightful on the subject over the past decade. But as early as the mid 1950s he wrote: "We don't need [an inspection] system which works well against a careless, uninformed, unimaginative opponent, but one that works well against an opponent who is smart, careful, and imaginative." Amrom H. Katz, "Hiders and Finders," (Santa Monica: RAND Corporation, April 26, 1961), p. 2432. Republished in Bulletin of the Atomic Scientists, 17 (December, 1961), pp. 423-424.

continually harken back to the dilemma posed by a closed society of "hidiers" and an open society of "finders." For Oppenheimer in 1946 the problem was quite simple: "It's very hard to tell whether a man is mining uranium because he's interested in cancer or interested in war." Oppenheimer's rejection of the "regulatory" approach to disarmament, then, was based on the logical inability of any kind of inspection regime to control compliance. His reversal on this position some years later -- after Soviet rejection of his preferred methods of control -- was a key event in the evolution of American compliance policy that will be discussed both here and in Chapter Five.

Having dismissed the regulatory approach to disarmament, Oppenheimer turned next to the so-called "retaliatory" method of atomic weapons control -- the collective security concept, whereby "aggressors" are identified by international consensus and punished under broadly sanctioned legitimacy. Experience had shown this scheme to be unworkable, according to Oppenheimer, because "broad cleavages, differences of opinion, and vacillations occur" such that "you do not have the effective operating unity which enables you to put your finger on the transgressor." Additionally, he regarded atomic weapons as singularly unsuited as

"police weapons," because, being stockpiled somewhere, their seizure during times of international tension would always pose a frightening possibility.<sup>9</sup> This left Oppenheimer with only one remaining solution to the control problem -- "an international organization responsible for developing atomic energy, getting what good there is out of it, and at the same time protecting the world against its destructive uses."<sup>10</sup>

For Oppenheimer, if atomic energy were not developed, it could not be controlled. It could not be approached as a control problem after development "because the developmental functions are an essential part of the mechanism for control." Oppenheimer's thinking was reflective of work done by a group appointed by President Truman and headed by Dean Acheson and David Lilienthal. The Acheson-Lilienthal Report, presented to the UN in March 1946, had concluded that it would be impossible to accommodate politically the development of peacefully intended atomic energy while outlawing that with purely military intent. Nor would the mere inspection of nuclear facilities owned by individual nations be considered adequate control. Out of the Acheson-Lilienthal Report

---

<sup>9</sup>Oppenheimer, p. 56.

<sup>10</sup>Ibid., p. 57.

and the control theory articulated by Oppenheimer, therefore, came the unparalleled UN proposal of 1946 by U.S. Representative Bernard Baruch. The Baruch Plan called for the complete relinquishment by the U.S. of all its atomic weapons, atomic power facilities, and atomic know-how, to international control. Accompanying this unprecedented act of unilateral disarmament would be the creation of an International Atomic Development Authority "to which should be entrusted all phases of the development and use of atomic energy," starting with the raw materials and including:

1. Managerial control or ownership of all atomic energy activities potentially dangerous to world security.
2. Power to control, inspect, and license all other atomic activities.
3. The duty of fostering the beneficial uses of atomic energy.
4. Research and development responsibilities of an affirmative character intended to put the Authority in the forefront of atomic knowledge and thus to enable it to comprehend, and therefore to detect, misuse of atomic energy. To be effective, the Authority must itself be the world's leader in the field of atomic knowledge and development and thus supplement its legal authority with the great power

inherent in possession of leadership in knowledge.<sup>11</sup>

Since the U.S. had already developed, tested, and operationally employed crude atomic weapon technology, American facilities were to be opened to the proposed Authority's inspectors, and all raw materials were to be yielded to international control. Since inspectors would always be burdened with confusion in distinguishing atomic energy for peaceful use from that with purely military intent, both types would be outlawed unless licensed and operated under UN auspices. Additionally, several provisions distinguished the Baruch proposal from all subsequent suggestions for disarmament or arms control. For example, no member of the UN Security Council could exercise a veto "to protect those who violate their solemn agreements not to develop or use atomic energy for destructive purposes."<sup>12</sup> Qualified representatives of the Authority were to be granted "adequate ingress and egress" by all nations as necessary to assure compliance. Furthermore, the international Authority

---

<sup>11</sup>The Baruch Plan: Statement By United States Representative Baruch to the United Nations Atomic Energy Commission, June 14, 1946, in Trevor N. Dupuy and Gay M. Hammerman, eds., A Documentary History of Arms Control and Disarmament (New York: R. R. Bowker Co., 1973), p. 302.

<sup>12</sup>Ibid., p. 305.

could administer "condign punishments" in the event of serious violation. No subsequent proposal would spell out enforcement provisions of any kind.

In theory, the risk and uncertainty of disarmament -- incumbent upon the West as a result of Soviet secrecy -- would have been offset by inspection and enforcement provisions under the Baruch Plan. Similarly, the risk and uncertainty incumbent upon the U.S.S.R. as a result of the American head start in atomic technology would have been offset by the open sharing of that know-how and the international ownership of existing weapons. Nevertheless, the Soviet response, delivered at the next meeting of the Atomic Energy Commission, was a counter-proposal amounting to outright rejection. The Soviet version would have required American disarmament prior to either the establishment of inspection schemes or the creation of the UN Authority itself. Enforcement was to be a purely domestic rather than international responsibility; peaceful atomic research was to proceed unhindered within individual nations; Security Council veto power would remain intact for the five permanent members; and international ownership and inspection were called infringements on national sovereignty. As British Representative Sir Michael Wright summarized:

What in fact was the Soviet reaction to the Baruch Plan? With remarkable candour they rejected it summarily and made it clear they did not want a ban on nuclear weapons except on terms that would have given no semblance of satisfactory verification arrangements.<sup>13</sup>

The only aspect of the Baruch Plan found to be acceptable to the U.S.S.R., then, was that the U.S. should internationalize its nuclear know-how and arsenal.

Unique provisions for veto-free international authority with formidable sanctions during a time of putative American monopoly on atomic technology made the Baruch Plan the last arms control proposal in which the Soviets would be asked to share equally the burdens of uncertainty and risk associated with compliance. Almost immediately Soviet control began spreading -- by force -- throughout Eastern Europe, and an outright Communist coup eliminated the last vestiges of pluralism in Czechoslovakia. The West countered with the formulation of NATO, but did not rearm energetically until spurred by a Soviet supported invasion of South Korea. In September, 1949 -- much sooner than anyone had expected -- the Soviet Union detonated what is generally believed to have been its

---

<sup>13</sup>Michael Wright, Disarm and Verify (New York: Frederick A. Praeger, Inc., 1964), p. 19.

first atomic bomb.<sup>14</sup> In December, 1950, while the U.S. was enmeshed in the Korean conflict, the Soviets explained to the UN General Assembly that the Baruch proposal had obviously been designed to institutionalize the U.S. atomic monopoly and thereby facilitate Third World American aggression.<sup>15</sup> By the time of Stalin's death in 1953 -- roughly coincident with the American withdrawal from Korea -- it was clear that Baruch-type formulas were dead. During this purported "thaw" in the bilateral relationship, the U.S. began to relax the compliance standards involving sanctions, international ownership, and a veto-free Security Council, all of which had been Soviet objections to Baruch.

To the Oppenheimer theory, such a relaxation in compliance controls had seemingly been intolerable. As he had explained the problem:

Were we not dealing with a rival whose normal practices, even in matters having nothing to do with atomic energy, involve secrecy and police control, which is the very opposite of the openness we have advocated...we might believe that less radical steps than internationalization could be adequate.<sup>16</sup>

---

<sup>14</sup>Dupuy and Hammerman, A Documentary History of Arms Control, p. 292.

<sup>15</sup>Ibid., p. 293.

<sup>16</sup>Oppenheimer, p. 73.

But less radical steps would have to be adequate if old premises about the institutionalization of peace were to be sustained. As the outspoken French UN Representative Jules Moch observed, the "point of no return" had been passed in disarmament now that fissionable materials were being produced within the secretive confines of Soviet society.<sup>17</sup> Since thereafter inspectors would always be uncertain about the location of atomic materials -- never mind about the purpose for which those materials were intended -- the "cops and robbers" approach would have to suffice if the West still wanted disarmament. Yet the smallest margin of error accepted in the accountability of fissionable materials could now translate to a sizeable stockpile of atomic bombs. The possibility of the U.S. or UN being able to confirm compliance -- to detect violations and to certify nonviolation -- was gone forever. Along with it had gone any possibility of low risk disarmament for the West.

## 2. The Soviet View ("Trust").

Indeed the international politics of the postwar world, paradoxical enough from a Western perspective,

---

<sup>17</sup>William R. Frye, "Characteristics of Recent Arms Control Proposals and Agreements," in Donald G. Brennan, ed., Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), p. 74.

must have looked particularly enigmatic from Moscow. The Soviet ruling regime, a victor in quest of spoils, was being urged not just to refrain from entering the so called "nuclear age" after the U.S. had already done so, but also to lift the traditional veil of secrecy that had become its greatest security asset. The paradox was all the more perplexing since it was the already open society that wanted unprecedented global disarmament, but the contradictions went further. The same U.S. President who had ordered the bomb's wartime employment now regarded disarmament as "the right thing to do," but appeasement enthusiasts of the 1930s were now bellicose and threatening. Bertrand Russell, for example, advocated "a large army of inspectors who must have the right to enter any [Soviet] factory without notice; any attempt to interfere with them or to obstruct their work must be treated as a causus belli."<sup>18</sup> Furthermore, said Russell in 1946:

In the near future, a world war, however terrible, would probably end in American victory without the destruction of civilization in the Western Hemisphere, and American victory would no doubt lead to a world government under the hegemony of the United States -- a result which, for my part, I should welcome with enthusiasm.... Russia, since it is a dictatorship in which public

---

<sup>18</sup>Bertrand Russell, "The Prevention of War," in Grodzins and Rabinowitch, eds., The Atomic Age, p. 102. Emphasis mine.

opinion has no free means of expression, can be dealt with only on the government level.... The only possible way, in my opinion, is by a mixture of cajolery and threat, making it plain to the Soviet authorities that refusal will entail disaster, while acceptance will not.... If Russia acquiesces willingly, all will be well. If not, it would be necessary to bring pressure to bear, even to the extent of risking war, for in that case it is pretty certain that Russia would agree.<sup>19</sup>

Truman, on the other hand, although supportive in principle toward disarmament, was strongly disinclined toward the employment of coercive methods of achieving that goal. Even so, he demanded safeguards from a cloistered society that would render compliance (in his words) "foolproof" during disarmament. Despite Soviet rejection of the Baruch proposal, Truman's compliance standards still required a "continuing inventory of all [Soviet] armed forces and armaments."<sup>20</sup> The "fact finders," he insisted, must know the state of armaments on any given date, as well as "how it is proceeding -- whether the armed forces of the country are increasing or diminishing."<sup>21</sup> These safeguards, although barely adequate for Truman, were portrayed as the traditional stuff of intelligence by the U.S.S.R. It therefore

---

<sup>19</sup>Ibid., p. 102, p. 104, p. 106.

<sup>20</sup>U.S. State Department Bulletin, Vol 25 (November 19, 1951), pp. 799-803.

<sup>21</sup>Ibid.

became the Soviet legitimotif to seize the diplomatic high ground calling first for a decree to outlaw atomic weapons, to be followed by negotiations about the compliance issue.

Moreover, the technology demonstrated by the U.S. in August 1945 had represented an advancement in more than just weapons of war. Technological prestige alone may have been enough to render restrictions on atomic research distasteful to the Soviets. Marxist notions about bourgeois diplomacy hardly prompted Soviet leaders to expect magnanimity or renunciations of power from the West. Edward Shils speculated in 1948 that diplomatic "generosity" on the part of their "natural enemies" may even have convinced the Soviets that the bomb was not as powerful as it was claimed to be. Shils thus suggested that if the U.S. would remain silent about the atomic bomb for about six months, the Russians would take it seriously enough to consider effective controls.<sup>22</sup> Most histories agree, however, that Stalin was profoundly aware of the bomb's effectiveness by the time of the Potsdam Conference, in which case related Soviet decisions were based purely on political considerations. Lacking the military

---

<sup>22</sup>Edward A. Shils, "Why the Failure?" in Grodzins and Rabinowitch, eds., The Atomic Age, p. 87.

power so clearly demonstrated by the U.S. over Hiroshima and Nagasaki, recently reminded of the consequences of military weakness, and distrustful of a seemingly pro-western UN, the Soviets desired their own opportunities for controlling postwar international politics. They were simply not interested in having their research and development progress publicly scrutinized.

Additionally, looking west the Soviets saw war weary populations in the industrial democracies requiring international political stability for their commercial recovery and burdened accordingly by the prospect of competing with a secretive adversary's weapon production. Thus while the West pressed for security negotiations, the Soviets, for whom the capabilities and intentions of the adversary were crystal clear, viewed the situation through an entirely different set of lenses. For them it was not at all axiomatic that security should be sought through negotiation rather than through traditional arms competition. Ethically, the only consideration was which route produced the Soviet connotation of security more efficiently. Economically, their postwar recovery actually generated a growth rate 50% greater than that

of the U.S. between 1950 and 1958.<sup>23</sup> Politically, there was no urgency whatsoever about "choosing" between arms racing and arms control because the U.S. had already committed itself to an approach calling for restraint. Instead of choosing between competition and restraint, the Soviets could have the best of both because, from the standpoint of asymmetric secrecy, negotiations would produce an ideal forum for competition.

Once the U.S. specified disarmament negotiations as a preferred foreign policy priority, the Soviets therefore had considerably greater room to maneuver diplomatically.<sup>24</sup> For them it would be like a chess game in which only they could see both sides of the

---

<sup>23</sup>Walter Lefebvre, America, Russia, and the Cold War 1945-1975, 3rd ed, (New York: John Wiley and Sons, Inc., 1976), p. 200.

<sup>24</sup>Even after the Soviets' rejection of the Baruch plan, American security was still widely viewed in collective terms with a strengthened UN and an otherwise disarmed world. According to the 1948 Vandenberg Resolution, for example, it was the sense of the U.S. Senate that American foreign policy should involve "maximum efforts to obtain agreements to provide the United Nations with armed forces as provided by the Charter, and to obtain agreement among member nations upon universal regulation and reduction of armaments under adequate and dependable guarantee against violation." U.S. Congress, Senate, Vandenberg Resolution 239, 80th Congress, June 11, 1948, paragraph 5, as cited in Dupuy and Hammerman, eds., A Documentary History of Arms Control and Disarmament, p. 348.

board. One way to exploit such an asset was to play the role of respondent and critic to Western proposals -- expressing righteous indignation whenever greater compromises might result. Since the Soviets held all the high cards on the compliance issue, agreements would limit only what they chose to make "visible" among their defense programs. By manipulating available information in this manner, they could pick and choose the substance of negotiations. During the early postwar years, when the Soviets were relatively weak militarily, the forum involving negotiations was especially beneficial for them, and was therefore also when they were most inflexible on the compliance issue. OSI, which happened to be the most commonly discussed control device of the post-Baruch era, thereby became the red herring of negotiations that has survived as such to the present day.

Examples of Soviet use of this advantageous bargaining position are abundant. In 1949, after testing their new atomic bomb, the Soviets withdrew altogether from the UN Atomic Energy Commission.<sup>25</sup> In 1952, a tripartite UN proposal by France, Great

---

<sup>25</sup>Wright, p. 20. The Soviets withdrew from the Conventional Armaments Commission at the same time.

Britain, and the U.S. -- principally designed to bring the Soviets back to the bargaining table -- substantively relaxed several control provisions previously considered essential by the West. Most Soviet anxieties had of course already evaporated because the U.S. no longer held a monopoly on nuclear technology; because international ownership was a dead issue; and because all enforcement provisions had been completely dropped. Nevertheless, OSI provisions were once again dismissed as intrusive.<sup>26</sup> "Progress" in negotiations between June 1946 and January 1952 had succeeded in bringing the Russians back to the conference table, but the price -- and the coin of arms control thereafter -- had been a substantial reduction in the West's compliance control standards.

As late as 1954, the Soviets' declaratory position in the UN continued to call for an immediate ban on nuclear arms and for across the board reductions in conventional forces by one-third: a combination which

---

<sup>26</sup>Bernard G. Bechhoeffer, Postwar Negotiations for Arms Control (Washington, D.C.: The Brookings Institution, 1961), pp. 152-3. The initial Soviet response seemed to demonstrate flexibility by agreeing to an international control organ's right to conduct "inspection on a continuing basis" that would not "interfere in the domestic affairs of States." A year later this was explained to mean "periodic" inspections subject to Soviet veto.

would have markedly enhanced the Soviets' already formidable conventional superiority while diminishing the offsetting American nuclear strength.<sup>27</sup> But in 1955-56, when a series of Soviet proposals seemingly dropped these two demands, it was heralded as a "breakthrough" by many and as "the movement of hope" by Philip Noel-Baker.<sup>28</sup> Such characterizations were widespread in the West even though the proposed schemes were to be supervised only by a "temporary international control commission" empowered simply to "receive reports."<sup>29</sup> The Soviets were of course benefitting from their alleged opposition to inspection in several ways by this time. They had successfully resisted both restrictions on their defense build-up and political pressures to "open" their growing arsenal to international scrutiny. Furthermore they had narrowed significant technological gaps through the rapid development of fusion weapons; and far from generating hostile reactions from their adversaries,

---

<sup>27</sup>Wright, p. 23.

<sup>28</sup>Philip Noel-Baker, The Arms Race, A Programme for World Disarmament (London: Stevens and Sons Limited, 1958), p. 12. See also Henry W. Forbes, The Strategy of Disarmament (Washington: Public Affairs Press, 1962), p. 94. See also Wright, p. 22 and Bechhoeffer, p. 296.

<sup>29</sup>Forbes, The Strategy of Disarmament, p. 94.

the West was more strongly inclined than ever to relax compliance policies to make disarmament negotiations possible.

Beginning in about 1955, Soviet treatment of the inspection issue began to take a new tack. Instead of simply resisting Western proposals requiring greater openness, the Soviets began to propose eagerly one agreement after another to be controlled by trust alone. In May 1955, for example, the Soviets began to "acknowledge" openly that:

there are possibilities beyond the reach of international control for evading this control and for organizing the clandestine manufacture of atomic and hydrogen weapons, even if there is a formal agreement on international control. In such a situation, the security of States cannot be guaranteed; since the possibility would be open to a potential aggressor to accumulate stocks of atomic and hydrogen weapons for a surprise attack on peace loving States, any agreement on the institution of international control can only serve to lull the vigilance of the peoples.<sup>30</sup>

What the Soviets were saying, that deception would be possible regardless of how thoroughly disarmament was controlled, was true. Despite the cynical implication that such compliance uncertainties were

---

<sup>30</sup>Soviet Proposal Introduced in the Disarmament Subcommittee: Reduction of Armaments, Prohibition of Atomic Weapons and the Elimination of the Threat of a New War, May 10, 1955, in Dupuy and Hammerman, eds., A Documentary History of Arms Control and Disarmament, p. 378.

borne equally by open and closed societies, this widely lauded "concession" was, in effect, a simple restatement of the "cops and robbers" analogy. For Oppenheimer, the inspection process had included two aspects, only one of which was still possible. The U.S. could still witness Soviet compliance behaviors (as allowed by the Soviets), but could never "see that no enterprises are being carried out which are not allowed."<sup>31</sup> The Soviet statement had been only half correct: the absence of violations, unlike the presence of compliance, would be a matter of great speculation with or without OSI -- but only for the U.S. Inspection, which had come to represent American "foolproof" controls on one end of the compliance policy continuum, was being rhetorically challenged by "trust," which represented Soviet criteria on the other end of the spectrum.

For the remainder of the decade, negotiators would ponder the seeming paradox between Soviet concerns about legalized espionage and American interests in monitoring the balance of power during disarmament. Through the UN, the two States would seek a "compromise" between these two "extremes." Both sides

---

<sup>31</sup>Oppenheimer, p. 56.

having acknowledged that weapons' development had outpaced known mechanisms of control, they would now focus discussions on this "sticking point." In general, the American solution would be to pursue partial agreements using available means of monitoring -- augmented as needed by OSI. The Soviet approach would be to pursue an "atmosphere of trust" through confidence building efforts, or to propose grand schemes of general and complete disarmament with no regard whatsoever for Western anxieties over compliance control. The logical synthesis of these two positions, staged disarmament with a measure of trust from which confidence could evolve, would be the implicit object of negotiations thereafter.

### 3. Synthesizing Control and Trust: The Demise of "Foolproof" Compliance Standards.

The decade following Soviet rejection of the Baruch Plan was a dynamic one in the quantitative as well as qualitative growth of both nuclear arsenals. Along with this evolution, the difficulty of weapons' accountability had increased geometrically. The complexity of the control problem was once described by Manhattan Project Chief Leslie R. Groves as follows:

...uranium 235...can be put into any form you wish it to be in, but within a few days it can be converted into material suitable for weapons use. In other words it is just like taking a piece of soap and melting it and pouring it into a new mold. It is just about that simple.<sup>32</sup>

As today's Arms Control and Disarmament Agency has described the 1955 situation in retrospect:

By 1955 both the United States and the Soviet Union had come to acknowledge that it would be extremely difficult to verify any accounting for the nuclear weapons and materials already produced, and hence that the complete elimination of such weapons was not a practicable goal for the foreseeable future. Accordingly, attention began to focus on the possibilities of partial disarmament and measures that would facilitate it -- such as a ban on nuclear testing -- and on steps to avert the danger of a surprise attack.<sup>33</sup>

President Eisenhower's 1955 explanation was that, despite considerable effort the U.S. had been unable to discover "any scientific or other inspection method which would make certain the elimination of nuclear weapons...[or] of being certain of the true budgetary

---

<sup>32</sup>U.S. Congress, Senate, Subcommittee of the Committee on Foreign Relations, Hearing, Control and Reduction of Armaments, Part II, 85th Congress, 1st Session., January 9, 1957, p. 1061.

<sup>33</sup>Verification, The Critical Element of Arms Control, Publication 85, (Washington, D.C.: U.S. Arms Control and Disarmament Agency, March, 1976), pp. 11-12.

facts of total expenditures for armament."<sup>34</sup>

Common to all three of these explanations, of course, was the unqualified assumption that bilateral disarmament negotiations had reached a "dead end," and that this was so primarily because known means of tracking Soviet compliance were either inadequate, nonnegotiable, or both. Thus, continued Eisenhower, "it is our impression that many past proposals of disarmament are more sweeping than can be insured by effective inspection."<sup>35</sup> The U.S. would continue to seek agreements, according to Eisenhower; indeed aerial reconnaissance and an exchange of national "blueprints" were recommended in the same address, but more significant than these suggestions was Eisenhower's implication of the new direction of future American proposals.

This was a crucial crossroad in the evolution of postwar American foreign policy because all signs had seemed to bring Western premises about the achievability of negotiated security into question.

---

<sup>34</sup>Statement by President Eisenhower at the Geneva Conference of Heads of Government: Aerial Inspection and Exchange of Military Blueprints, July 21, 1955, in Dupuy and Hammerman, eds., A Documentary History of Arms Control and Disarmament, p. 378. Emphasis mine.

<sup>35</sup>Ibid.

Instead of abandoning established assumptions, however, future American arms reduction proposals would simply be limited "to the extent that the system will provide assured results."

In other words, since only one of inspection's twofold tasks could now be fulfilled, the U.S. would seek partial disarmament under partial controls. By linking the stages of future agreements directly with the legitimized monitoring methods in being, Eisenhower had specified a linear "cause and effect" relationship between American ability to observe Soviet compliance on the one hand, and an atmosphere conducive to American negotiating flexibility on the other. Additionally, although aerial photography was intended as "only the beginning," designed to "build confidence," such a proposal had never before been made and was realistically more of an opening gambit from which negotiations could begin.

Eisenhower had also gone beyond traditional policies according to which partial controls were a necessary precondition -- now such controls could be a sufficient precondition as well. In the evolving parlance of diplomacy, "disarmament" had given way to "arms control," and "foolproof" controls had become "verification of compliance." The differences were

more than semantical. Instead of diplomatic efforts to reduce the threat of modern weaponry, arms control would become a forum for the management of a shifting power balance. Instead of monitoring schemes in which the U.S. would know whether or not Soviet violations were underway, modest procedures acceptable to the Politburo would occasionally corroborate the occurrence of behaviors that comply with agreements -- and these would "build confidence." Eager to solemnize American compliance policy as the principal topic of subsequent negotiations, Premier Bulganin promptly reported to the Supreme Soviet: "As the United States President justly pointed out, every disarmament plan boils down to the question of control and inspection. The question is indeed very serious and we should find a solution to it which would be mutually acceptable."<sup>36</sup>

The Soviets then vehemently rejected Eisenhower's aerial reconnaissance proposal as, again, legalized espionage and "inspection without disarmament." In 1956 the Soviets claimed to have surpassed the U.S in nuclear weapons,<sup>37</sup> and in 1957 they began offering a

---

<sup>36</sup>Bechhoeffer, Postwar Negotiations, p. 298. Bulganin's remarks were on August 4, 1955, about 6 weeks after Eisenhower's "open skies" address at Geneva.

<sup>37</sup>Forbes, The Strategy of Disarmament, p. 96.

series of "first steps" normally involving uninspected test bans. Although these were unacceptable to the West even as "partial measures," pressure for an agreement had begun to manifest the enormous impatience of Western populations. Philip Noel-Baker, for example, asked:

[Has] the United States Government reached the point reached by the British, French, and Germans in 1914 -- do they now believe that only armaments can make them safe, and that 'keeping a lead' in weapons and in forces is the only way to safeguard the national interest and uphold the peace? Are they ready to let the arms race go on year after year, with mounting cost, and new inventions which force all other nations to follow suit? Can they believe that, under the pressure of this competitive preparation for total war, national safety, now or ever, can be found?<sup>38</sup>

Significantly, the premises of this critique were: that there was no moral choice whatsoever for the West between competition and negotiation; that no matter which route the Soviets chose, the West must "choose" restraint; and that the burden of making that restraint mutual through diplomacy alone was a Western responsibility.

Yet the only portion of the negotiations that the West could privately manipulate was its compliance policy. It is also noteworthy that this criticism was

---

<sup>38</sup>Noel-Baker, p. 30.

coming after the Soviets had rejected Eisenhower's overhead reconnaissance proposal, which for the U.S. had been "but a beginning." Nevertheless, since the failure of arms control had come to be regarded as a technical/procedural problem, the 1958 Experts Conference was assembled under the UN to ponder the compliance question regarding the Soviet test ban proposals. The conference concluded that compliance with such a ban could be policed by a combination of seismic monitoring posts and, as a supplement in cases of ambiguity, on-site inspections. Although there was little evidence that a test ban was in the American interest, Eisenhower immediately expressed his government's willingness to suspend further testing upon implementation of the experts' recommendations.

Although American data in 1958 had disclosed the technical difficulty of distinguishing between earthquakes and underground explosions, arguments persisted over the next three years as to not only the OSI portion of the experts' conclusions, but over the location of seismic control posts as well. The Soviets wanted absolute veto authority over all substantive questions including decisions to inspect. They also demanded that inspection teams and control posts be organized on an ad hoc basis composed of nationals of

the country being inspected. Furthermore, it became the official Soviet position that the number of control posts, the number of inspections, and the composition of the inspection teams were matters to be resolved on political rather than technical grounds. Soviet technical representatives would therefore refuse to discuss these problems on the basis of scientific data. Although the principle of inspections -- under carefully controlled conditions -- had finally been acknowledged as acceptable to the Soviets,<sup>39</sup> they continued to propose the sequence of "treaty first, controls later."

As a "show of confidence," the U.S. finally agreed in 1958 to an "informal" testing moratorium on Soviet

---

<sup>39</sup>Throughout the test ban negotiations, debates over OSI involved "how many" there should be rather than whether or not inspections were possible. Although they demanded an upper limit (of three) on the annual number of such inspections (and probably knew that the U.S. would never agree to meaningful arms restraints on that basis), the Soviets did seem to agree in principle to inspections. See Glenn T. Seaborg, Kennedy, Khrushchev, and the Test Ban (Berkeley: University of California Press, 1981), pp. 15-16. Additionally, the Soviets agreed in 1959 to the inspection of "all stations, installations and equipment..., and all ships and aircraft at points of discharging or embarking cargoes of personnel in Antarctica..." But even though such inspections were to be of Soviet facilities in Antarctica, advance notice was required prior to all inspections. See "The Antarctic Treaty," in Arms Control and Disarmament Agreements, Pub 77 (Washington, D.C.: U.S. Arms Control and Disarmament Agency, February, 1975), pp. 22-23.

terms; there would be no testing or control measures while negotiations continued. It is worth recalling that this was roughly the midpoint of the "missile gap" controversy when Soviet party and government leaders, the press, and the official propaganda machinery were making their wildest claims about the growing offensive military power of the U.S.S.R. Nevertheless, negotiations toward a comprehensive test ban continued, as did the uninspected moratorium, for about three years. The U.S., in agreement with the UN Experts' Conference, insisted at first that inspections be set at no fixed annual upper limit, that they be permitted whenever unidentified seismic events occurred; later the U.S. agreed to a quota of "about twenty" annual inspections, then "ten to twenty," and still later to a maximum of "six or seven" annual inspections.

But in August, 1961, after many threats of doing so, the Soviet Union lifted its voluntary test moratorium and continued over the next month with an extensive series of tests including one of at least 58 megatons<sup>40</sup> (the Soviets claimed, candidly enough, that the explosion had exceeded 100 megatons -- discussed in Chapter 1, Section 3). The tests, which could not have

---

<sup>40</sup>Forbes, The Strategy of Disarmament, p. 103.

been conducted without extensive secret preparations, were of course a great surprise to the U.S.; which had been operating near the "trust" end of the control spectrum. The Soviets' clandestine preparations, followed by the most violent series of nuclear explosions to this day, may even have exceeded theoretical and technical preparatory efforts. Some have suggested that the technical progress manifested by these tests could not have transpired without actual secret underground testing throughout the uninspected moratorium.<sup>41</sup> The potential for small clandestine explosions, and the similarity of their seismic signatures to those of earthquakes, after all, had been the grounds on which the U.S. had required corroborating inspections of a comprehensive test ban all along.

Once again, the consequences of security agreements with a closed and deceptive partner had been demonstrated. Far from "building confidence" the Soviet formula of negotiating controls while the terms of an agreement were being observed had only validated the American fear that strict observance would be unilateral. President Kennedy expressed his own

---

<sup>41</sup>S. T. Cohen and W. R. Van Cleave, "The Nuclear Test Ban: A Dangerous Anachronism," National Review, July 8, 1977, p. 770.

skepticism on March 2, 1962:

We know enough now about broken negotiations, and the advantages gained from a long test series never to offer again an uninspected moratorium.<sup>42</sup>

Shortly after the resumption of Soviet testing, however, the Soviet representative to the Ten-Nation Disarmament Conference declared that inspection of any kind would be unacceptable to the Soviet Union.<sup>43</sup> Yet in accordance with the principle articulated by Eisenhower in 1955, this would not necessarily mean the end of arms control for the U.S. -- only an end to the kinds of arms control dependent on OSI. American declaratory policies would continue to specify rigid control standards, but real world politics would involve considerable Western flexibility. The Soviets, by comparison, would typically declare flexibility on the principle of controls while demonstrating great rigidity in practice.

In September, 1961, for example, in bilateral Soviet-American negotiations following the Soviets' walkout from the Ten-Nation Disarmament Conference, the two sides arrived at a Joint Statement of Agreed

---

<sup>42</sup>As cited by Cohen and Van Cleave, p. 770.

<sup>43</sup>Forbes, p. 103.

Principles.<sup>44</sup> This joint statement, which has been repeatedly cited in subsequent negotiations and agreements, called for "verification of disarmament" at each "stage" of disarmament as follows:

All disarmament measures should be implemented from beginning to end under such strict and effective international control as would provide firm assurance that all parties are honoring their obligations. During and after the implementation of general and complete disarmament, the most thorough control should be exercised, the nature and extent of such control depending on the requirements for verification of disarmament measures being carried out in each stage. To implement control over and inspection of disarmament, an International Disarmament Organization including all parties to the agreement should be created within the framework of the United Nations. This International Disarmament Organization and its inspectors should be assured unrestricted access without veto to all places as necessary for the purpose of verification.<sup>45</sup>

Although the joint statement spells out what looks very much like full acceptance of Western notions about adequate control, it turned out that the words meant something entirely different to the Soviets. The U.S. had actually hoped to include the following clause as well:

---

<sup>44</sup>Dupuy and Hammerman, eds., A Documentary History of Arms Control and Disarmament, p. 469.

<sup>45</sup>Report of the United States and the Soviet Union to the Sixteenth General Assembly on the Results of Bilateral Talks: Agreed Statement of Principles, September 20, 1961, in Dupuy and Hammerman, eds., A Documentary History of Arms Control and Disarmament, p. 471. Emphasis mine.

Such verification should ensure that not only agreed limits and reductions take place, but also that retained armed forces and armaments do not exceed agreed levels at any state.<sup>46</sup>

Striving one more time to achieve something more than a "cops and robbers" type of control mechanism, Presidential Adviser John J. McCloy had argued that this clause expressed:

a key element of the United States position which we believe is implicit in the entire joint statement of agreed principles that whenever an agreement stipulates that at a certain point certain levels of forces and armaments may be retained, the verification machinery must have all the rights and power necessary to ensure that those levels are not exceeded.<sup>47</sup>

At Soviet insistence, McCloy had agreed to exclude this passage from the joint statement, but only with "the express understanding that the substantive position of the United States Government . . . remains unchanged, and is in no sense prejudiced by the exclusion of this sentence from the joint statement of agreed principles."<sup>48</sup> The notion of "verification" clearly meant more to McCloy than simply assuring oneself that

---

<sup>46</sup>Wright, Disarm and Verify, p. 34.

<sup>47</sup>Letter from Presidential Adviser McCloy to Deputy Foreign Minister Zorin: Verification of Retained Forces and Armaments, September 20, 1961, in Wright, Disarm and Verify, p. 174.

<sup>48</sup>Ibid.

required provisions did occur; it included as well assurances that other prohibited activities (such as hidden stockpiles of weapons) did not occur -- a conceptual distinction with which the Soviet Union has disagreed from 1946, when J. Robert Oppenheimer first advocated it, to the present day.

The Soviet meaning of verification was never more clearly articulated than in Soviet UN Representative Zorin's response to these remarks by McCloy:

[Your] proposal...would imply acceptance of the concept of the establishment of control over armaments instead of control over disarmament. In your letter you say that this proposal 'expresses a key element in the United States position'.... It...appears that the United States is trying to establish control over the armed forces and armaments retained by states at any given stage of disarmament. However, such control, which in fact means control over armaments, would turn into an international system of espionage, which would naturally be unacceptable to any state concerned for its security and the interests of preserving peace throughout the world.<sup>49</sup>

According to the Soviet logic then, American concerns about compliance during disarmament were legitimate only to the extent that they would verify the elimination of arms once held, and not as they

---

<sup>49</sup>Letter from Deputy Prime Minister Zorin: Verification of Retained Forces and Armaments, September 20, 1961, in Wright, Disarm and Verify, p. 175, Emphases mine.

applied to the remaining arsenal. Should an agreement come about, for example, which reduced nuclear weapons in Europe by, say, one-third, then the U.S. would have a valid interest in certifying the destruction or movement of whatever it agrees to call one-third of the Soviet arsenal. The U.S. would have no valid claim, however, to information related to the present or future status of the remaining "two-thirds." Inspection, or some other means of assuring oneself that weapons have been removed is "control over disarmament" -- a legitimate interest according to the Soviets. But continued efforts to assure oneself that those weapons have not been replaced, or concealed, or that they in fact represented one-third of the Soviet arsenal in the first place, constitute "control over armaments" which is equivalent to an "international system of espionage."

Soviet support for "the most thorough and strict international control," thus applied to control over "disarmament" and not to control over "armaments." "Verification," as used in the Statement of Agreed Principles, was therefore limited, in Russian eyes, only to arms removed. A careful rereading of that portion of the Agreed Statement quoted above informs one that, indeed, all references to "verification" are

followed by the now highly relevant phrase "of disarmament." The association of these concepts would not normally involve the assumptions which were so obvious to Mr. Zorin. On the other hand, the Soviets have a tradition of defining ambiguous concepts in a manner which serves their interests as they perceive them.

Like the May 1955 Soviet "admission" that nuclear assembly prohibitions were beyond any known methods of control, Zorin's 1961 statement took a lofty stance with regard to American compliance policy. Six months later, in his address at the opening of the Eighteen Nation Disarmament Conference, Soviet Foreign Minister Gromyko reiterated the "in principle" portion of the Soviet position:

The Soviet Union wishes to have the necessary guarantees that the disarmament obligations that have been agreed upon will be carried out and that there are no loopholes which will permit the clandestine production of aggressive armaments once the process of general and complete disarmament has begun. Our country does not intend to take anyone at his word, least of all states which have established close military alignments, are pursuing a policy of building up armaments, and have placed their military bases as close as possible to the Soviet Union. Nor do we expect others to take us at our word. The Soviet Union is a firm advocate of strict control over disarmament.<sup>50</sup>

---

<sup>50</sup>As quoted by Wright, Disarm and Verify, p. 35.

British Representative Sir Michael Wright, who calls attention to the careful efforts in this statement to preserve the Zorin reservations, concludes that Soviet "in practice" approaches to the control problem were limited to three fields:

1. Verification of arms destroyed;
2. Verification of any factories where the Soviet Government declares that arms production has ceased;
3. Verification at any missile sites declared by the Soviet Government to be the only missile sites remaining, including verification of missiles upon them.<sup>51</sup>

Undeterred by these realizations, Kennedy concluded in 1962:

We know of no way to verify underground nuclear explosions without inspections, and we cannot at this time enter into a treaty without the ability and right of international verification. Hence we seem to be at a real impasse. Nevertheless, I want to repeat with emphasis our desire for an effective treaty and our readiness to conclude such a treaty at the earliest possible time.<sup>52</sup>

Kennedy's dilemma was akin to what Amrom Katz has called the "Manichean heresy" of arms control. The problem as Katz describes it is that "we don't want to include anything in the treaty that we can't verify,

---

<sup>51</sup>Ibid., p. 38.

<sup>52</sup>As quoted by Seaborg, Kennedy, Khrushchev and the Test Ban, pp. 146-7.

and we don't want to exclude anything that is (militarily) significant."<sup>53</sup> Unfortunately, however, these are not necessarily coincident properties. Kennedy foreclosed an underground test ban because Soviet objection ruled out corroborating inspections, and because his own experience of 1961 had ruled out uninspected agreements. What Kennedy called "a real impasse" resulted from a paradox of his own making. He had "no way to verify underground nuclear explosions," but still held ("with emphasis") to his "desire for an effective treaty . . . at the earliest possible time."

Forced by a "Hobson's choice" -- as imposed by a combination of Soviet interests and his own eagerness to conclude an agreement -- Kennedy was virtually driven into the Limited Test Ban Treaty of 1963. This agreement, which mandated that subsequent nuclear weapons tests must take place underground, banned all testing that was then considered controllable without OSI and thereby confined Soviet explosions to the environment that was most difficult for the U.S. to "see." The Treaty, the verification of which was to be accomplished without inspection, control posts, aerial

---

<sup>53</sup>Amrom H. Katz, Verification and SALT, The State of the Art and the Art of the State (Washington, D.C.: The Heritage Foundation, 1979), p. 3.

reconnaissance, or international mechanisms of enforcement, marked a critical watershed point in postwar American foreign policy. "Negotiated" security, which for eighteen years had manifested itself in a series of proposals and counter proposals, was no longer just a hypothetical abstraction. Coincident with the actualization of negotiated arms constraints, 1963 marked the initiation of a Soviet nuclear arms buildup that has produced the most astonishing balance of power reversal in history; the buildup continues today with no signs of slackening.

But of particular significance for purposes of this study was the accompanying demise of on-site inspection as a legitimate means of assuring all aspects of Soviet compliance. After the failure of international ownership as a method of control, Oppenheimer's first choice, the failure to develop agreeable control devices had effectively ruled out his "regulatory" method as well. The commitments made by the U.S. between 1955 and 1963 to the pursuit of arms agreements anyway was a political decision of great magnitude. It was a decision that would consign the U.S. to the "cops and robbers" approach to its own security right down to the present day.

Even though treaties and agreements of arguable

significance over the ensuing decades would permit variations on the theme of physical inspection, such provisions would never approximate the capacity to confirm compliance or prove noncompliance by a secretive Soviet government. Yet the notion of inspection had for so long been associated with rigid American compliance controls, that the suggestion of its acceptability in some form to the Soviets is still often regarded as an "enormous breakthrough."<sup>54</sup> Examples will be examined in the context of SALT era compliance policies in Chapter Six. All such Soviet "concessions" would carefully guard the Zorin reservations and no controls would be seriously considered if they approached the rigid compliance criteria once demanded by the U.S. The persistence of high expectations in conjunction with various forms of on-site inspection, however, has been the inevitable consequence of compromises and commitments made early-on with the abandonment of foolproof compliance standards. Partial disarmament with partial controls is the result of official policy decisions of the mid

---

<sup>54</sup>See for example "Banning the Ban," The New Republic, August 23, 1982, p. 23. This editorial advocates ratification of the 1974 TTBT and 1976 PNET and alludes to more recent Soviet implications that OSI could be tolerated in support of a CTBT. The latter is called an "enormous breakthrough."

AD-A135 439

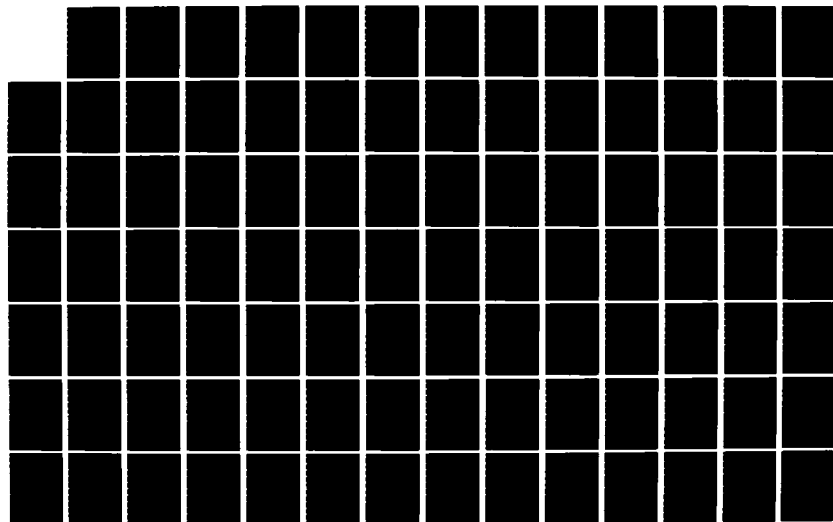
ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

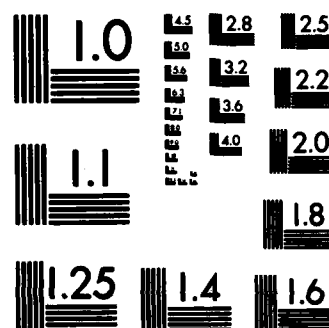
3/6

UNCLASSIFIED

F/G 5/4

NL





1950s which culminated in ratification of the Limited Test Ban Treaty in 1963. As the Arms Control and Disarmament Agency has summarized the significance of that Agreement:

The Limited Test Ban Treaty of 1963, which relied for the monitoring of compliance on what came to be called 'national technical means' of verification, marked an important step in the postwar history of arms control.<sup>55</sup>

---

<sup>55</sup>Verification, The Critical Element of Arms Control, p. 13.

## CHAPTER V

### THE THEORY IN TRANSITION: FROM CERTAINTY TO UNCERTAINTY IN COMPLIANCE POLICY

The rise and fall of the "right to inspect" as a central requirement of American compliance policy represented a substantial reorientation of national security policy in a fairly brief period of time. Part of this shift can be explained with reference to the increasing sophistication of intelligence monitoring technology between 1946 and 1963, but only a small part. The evolution of a compliance policy that openly accepted "uncertainty" was a change that is difficult to rationalize on technical grounds alone. Indeed such change is particularly startling when compared with the persistent adherence to secrecy maintained by the U.S.S.R. over the same period. Yet in this stark comparison lies a large part of the explanation for the American shift as well. Only the free expression of conflicting values and policy premises can ultimately manufacture such change, and only a staid conservatism under powerful central authority can pervasively stifle

it. The open society accommodated new theories of verifiable arms control, new "bridge" mechanisms in this context, each time one was needed to keep the "process" in motion, each time a previous bridge theory failed to "enable" an agreement.

Theories of verifiable arms control came forward from a variety of perspectives during these years and contributed ultimately to the compliance policies of the late 1960s that made SALT "adequately verifiable." This chapter will selectively review this literature in order to show how the acceptance of uncertainty in American compliance policy -- which was so essential to SALT era bargaining flexibility -- came about. In general, verification theories have followed, rather than led, the intelligence community's monitoring technology, and have tended to be no more "demanding" than what the Soviets have treated as negotiable in the past. Thus there has developed a certain ratchet effect in verification theories, whereby they tend to be less and less assertive as time goes by. When the author is a proponent of negotiated security agreements, his theory of verification normally purports to have discovered a "bridge" between the secretive and open societies. These theories often begin from a common set of assumptions. On the one

hand is the belief that disarmament, while perhaps somewhat risky for the U.S., would nevertheless be far less risky than continued arms competition in the nuclear age. On the other hand there is the conviction that the Soviet Union, while indeed closed, realizes the urgency of nuclear arms control, obeys the strict letter of its international commitments, and will come to terms with an agreement that recognizes the fundamental inherency of its secrecy traditions.

Theories claiming to bridge the chasm in security related policy orientations therefore strive to thread the needle, so to speak, between "legitimate" Soviet secrecy interests on the one hand, and legitimate American compliance concerns on the other. In so doing, they advance schemes of compliance control that "enable" security agreements between otherwise irreconcilable political interests. These schemes promise to minimize both the risk of unilateral compliance from an American perspective and any resultant "intrusion" on state sovereignty from a Soviet perspective. Within the context of this zero-sum conflict, however, political differences presumed irrelevant in earlier phases of negotiation must finally confront one another.

While the U.S. and U.S.S.R. have engaged in this

political competition, American academicians, primarily atomic scientists and international legal scholars, have sought to bridge a conflict whose dimensions are far more political in nature than they are technical or legal. Scientists not well versed in the ambiguities and enforcement problems of international law, but quite knowledgeable about the effectiveness of technical monitoring devices, have advanced technical solutions. Lawyers not well versed in the precise relevance of technical limitations, but steeped in procedural information about treaty formulation and the language of diplomacy, have offered legal solutions. Individually and jointly, such reductionism by the two groups has generated theory after theory for verification, with nearly complete disregard for the political stakes. Having assumed from the outset a clear distinction between environments of negotiation and competition, taking Soviet rejections and explanations at face value, and attributing failures to reach agreements to the techniques of verification or the technicalities of the treaty process, these two groups generated one "bridge" theory after another while a ratchet effect compromised American political interests more and more with each iteration of the process. This chapter will review both traditions and

then examine the arguments of their critics.

1. The Scientists.

J. Robert Oppenheimer, the physicist who had supervised technical aspects of the Manhattan Project, explained his own participation in postwar diplomacy as follows:

. . . [I]t may be permitted that men who have no qualifications in statecraft concern themselves with the control of atomic energy. For I think that the control of atomic energy is important, in part, because it enables us to get away from patterns of diplomacy which are, in some respects at least, unsatisfactory as a model for the relations between nations, and to set up instead a working relationship between the peoples of different countries, which has in it some promise for the future.<sup>1</sup>

This remarkable statement, so crudely arrogant but so naively innocent, could probably only have been made by one with "no qualifications in statecraft." The presumption was that, since old "patterns of diplomacy" (i.e. politics) were unsatisfactory "models" for the present, new (i.e. scientific) ones had to be "set up." As if deeply imbedded cultural and national interests would be voluntarily offered up to some collective concern about a new energy source, Oppenheimer would replace national sovereignties with

---

<sup>1</sup>J. Robert Oppenheimer, "International Control of Atomic Energy," Morton Grodzins and Eugene Rabinowitch, eds., The Atomic Age (New York: Basic Books, Inc., 1963), p. 53.

rational, noncoercive new models that hold "some promise for the future." Just as the great tradition of American science and technology had brought an end to the most terrible war in history, so too would scientists connect causes with effects and bring war to an end for all time.

For Oppenheimer, the problems of conventional armaments, world government, standards of living, and access to raw materials were indeed major issues. But "progress in these fields is very slow, and is likely to continue very slow," he explained, whereas with atomic energy "certain of the difficulties which exist in other areas are absent."<sup>2</sup> The distinguishing characteristic of atomic energy then, was that

...one can set up a system of control. When I use the word can, I mean it is consistent with the technical facts, it is consistent with the way ordinary people behave, it will work in a human sense and a technical sense.<sup>3</sup>

With his major premises about "the technical facts" and "the way ordinary people behave" thus preordained, the internationalization of atomic energy was a deduction that fell irrefutably forward.

Equally irrefutable was Oppenheimer's explanation of why a "regulatory" or "cops and robbers" scheme

---

<sup>2</sup>Ibid., p. 54.

<sup>3</sup>Ibid., pp. 54-55. Emphasis his.

would fail:

The national rivalries which are permitted to exist under these conditions will cause every nation to come as close to evasion as they can, and instead of having a situation in which it is to the advantage of operators to do things safely, you will have it to the advantage of the operators to cut corners just as much as possible because the operators are concerned with their own national advantage. You see a great plant that is going up, and you were assured that this plant has as its purpose only the production of power for this poor town that has never had enough, and you look at the records and it looks to you as though there were plenty of power there, and you have to begin worrying about what the real purpose of the people who are building the plant is, and purpose is a hard thing to establish.<sup>4</sup>

But by 1953, when it was clear that Oppenheimer's initial bridge theory had proved nonnegotiable with the Soviets, he returned to the precise measures he had rejected in 1946 by advocating "a very broad and robust regulation of armaments."<sup>5</sup> Despite a still "troublesome margin of uncertainty with regard to accounting," some combination of "defense and regulation" was now regarded as the only alternative to an arms race that would lead to nuclear war.<sup>6</sup>

---

<sup>4</sup>Ibid., p. 56.

<sup>5</sup>J. Robert Oppenheimer, "Atomic Weapons and American Policy," July 1953, in Grodzins and Rabinowitch, p. 196.

<sup>6</sup>Ibid.

Dr. Oppenheimer's complete reorientation regarding the "regulation" of arms -- a direct reaction to Soviet rejection of his earlier position -- manifested the spirit of accommodation dominating much of the scientific community at the time. This "back to the drawing board" or "problem-solution" approach to security negotiations would in fact come to characterize the scientists' "apolitical" perspective on the matter. Instead of simply asserting the terms according to which the U.S. would relinquish its atomic weapons superiority, scientists throughout the 1950s and 1960s would strive to reconcile their own urgency about disarmament with the reality of uncertainty as to compliance. Eugene Rabinowitch, for example, felt that modern weapons' destructiveness rendered the necessity of permanent world peace inescapable, but that "only scientists can make this revision of values readily."<sup>7</sup> Furthermore, Rabinowitch was highly encouraged by Soviet scientists' participation in the Pugwash meetings of scientists, which indicated to him that "they, too, are now convinced that man's mastery of nuclear forces has put an end to the acceptance of war

---

<sup>7</sup>Eugene Rabinowitch, "Status Quo with a Quid Pro Quo," September, 1959, in Grodzins and Rabinowitch, p. 198.

as a cruel, but still rational, means of settling international disputes.... The picture is inevitably much less clear for those without scientific background, and this includes the national leadership of all countries."<sup>8</sup>

The Soviets were simply afraid that inspections would reveal the locations of secret military and industrial facilities, explained Rabinowitch, but to sacrifice these concerns "would be a small price [for the Soviets] to pay for an agreement."<sup>9</sup> Similarly, he contended, American refusal to consider "any step that could be interpreted as recognition of East Germany," regardless of "whether or not this may bring the world closer to war," manifested the same irrational inflexibility.<sup>10</sup> The solution, so obscure to nonexperts of Physics, Chemistry, or Biology, was crystal clear to Rabinowitch:

If a new scale of values were adopted by both sides, we would see not an unwilling, slow approach to the resolution of war threatening conflicts, but mutual outbidding in the provision of guarantees and securities which the other side might feel necessary for its protection from a surprise attack.<sup>11</sup>

---

<sup>8</sup>Ibid.

<sup>9</sup>Ibid., p. 199.

<sup>10</sup>Ibid.

<sup>11</sup>Ibid.

While awaiting a "new scale of values," and accompanying "shifts in the world map," said Rabinowitch, a "freeze" was clearly called for in order to stabilize the nuclear status quo.<sup>12</sup> Not to be outdone in the accommodation of new realities, Bertrand Russell expressed his new conviction that even surrender to foreign domination would be preferable to the consequences of nuclear arms racing.<sup>13</sup>

Scientists' arguments, ironically enough, relied far more on such emotional appeals to public fear and (alleged) ignorance, than to objective assessments of empirical realities. As may be expected in an open society that gives vent to the exchange of such viewpoints, these appeals were not without substantive impact on American foreign policy initiatives of the 1950s. The convictions that security negotiations were essential and that the political gap between the U.S. and Soviet Union could be bridged by evolving technology were clearly influential in the Eisenhower Administration. The President's 1955 Geneva position

---

<sup>12</sup>Eugene Rabinowitch, "Stop Before Turning" Bulletin of the Atomic Scientists, September, 1958. Modern arms control enthusiasts will find this argument interesting.

<sup>13</sup>As cited by Rabinowitch, "Status Quo with a Quid Pro Quo," p. 198.

called for legitimization of overhead reconnaissance so as to "enable" security negotiations with a secretive and deceptive adversary -- a clear tribute to the scientists' approach to international relations. Similarly, Eisenhower's 1958 response to Soviet test ban proposals included his suggestion to convene immediately a Conference of Experts to recommend "adequate" technical bridges, and his commitment to act on the basis of these experts' conclusions.

Soviet rejections of both the 1955 and the 1958 technical solutions proposed by the Eisenhower Administration were particularly instructive. These "bridges" were repudiated by the Soviets not simply on grounds that they were "intrusive," but, more significantly, because they had reduced political problems to technical and mechanical ones in the first place. No part of their historical experience or Marxian ideology allowed Soviet leaders to view security negotiations as nonpolitical undertakings. The idea of competing for power by amassing great quantities of destructive capability -- so "irrational" in the context of the Western scientific traditions -- was deeply rooted in Marxism-Leninism and in Russian and Soviet histories. As the proponents of these conflicting perspectives talked past each other with

proposals and counterproposals throughout the 1950s, however, still more troublesome discoveries were brought to bear from within the American technical community itself.

In studies conducted in 1959 and 1960, Albert L. Latter demonstrated the futility of the Experts' recommendations for technically monitoring compliance with a comprehensive test ban. Latter's discovery of the "decoupling" effect revealed that a nuclear detonation's seismic impact could be muffled sufficiently to obscure the distinction between a 300 kiloton explosion and an explosion of a single kiloton. Furthermore, said Latter, "it appears possible to explode a 20KT device in a cavity no bigger than some which already exist, without producing a signal that could be detected by the Geneva [Experts'] system."<sup>14</sup> Even those scientists who supported a comprehensive test ban, such as Hans Bethe, acknowledged the validity of Latter's analysis.<sup>15</sup> Additionally, a California Institute of Technology

---

<sup>14</sup>Albert L. Latter, Concealment of Underground Explosions, March 16, 1960, RM-2562-AEC (Santa Monica: The Rand Corporation), iii. This paper confirmed findings first published by Latter in 1959.

<sup>15</sup>Glenn T. Seaborg, Kennedy, Khrushchev, and the Test Ban (Berkeley: University of California Press, 1981), p. 19.

Panel headed in 1959 by Robert F. Bacher was persuaded (by Harold Brown) that even on-site inspections would have little likelihood of proving violations if a determined adversary were committed to their concealment.<sup>16</sup> Far from stifling the scientists' enthusiasm, however, these discoveries enabled their retreat from a political impasse (over OSI) on grounds of technical inadequacy.

It was obviously another "back to the drawing board" time for American scientists. Bridges that were technically inadequate from a Western standpoint were already politically unacceptable to the Soviets on "intrusion" grounds. Soviet "cooperation" would be necessary to give credibility to the scientists' compliance solutions, but the Soviets had refused to discuss the matter as a technical one. But new premises and new technology were on the horizon. Legal scholars, to be discussed in section 2 of this chapter, began arguing that inspection would present unimaginable constitutional problems in both the U.S.

---

<sup>16</sup>Brown's argument is cited in George B. Kistiakowski, A Scientist at the White House (Cambridge: Harvard University Press, 1976), p. 6. Kistiakowski was President Eisenhower's science adviser in 1959. Brown, who was Assistant Director of the Livermore Laboratory at the time, became a strong supporter of the LTBT after it was presented to the Senate in 1963. See Seaborg, p. 19.

and U.S.S.R. anyway -- it was therefore just as well that it be disregarded. Intelligence technology, to be discussed in Chapter Six, produced its first reconnaissance satellite in 1960. And scientists of various backgrounds began explaining why it was absurd to demand certainty about Soviet compliance in any case.

The physicist Lewis F. Richardson, for example, began describing the arms race as an essentially mechanical process with a momentum of its own.<sup>17</sup> The "energy" for this process, an intense competitive interaction between the U.S. and U.S.S.R., could be impeded by the restraint of either party regardless of how compliance was ascertained. Using differential equations to simulate the two governments' security decisions, Richardson sought to discover the "reaction coefficient" under friendly or hostile environments. If nation A is hostile and distrustful toward nation B -- arming, for example, more rapidly than the situation warrants -- how does B respond? Does B react slowly? at a moderate pace? or does he become alarmed, arm at a still faster pace and thereby set in

---

<sup>17</sup>Lewis F. Richardson, Arms and Insecurity (Pittsburgh: Boxwood, 1960), and Statistics of Deadly Quarrels (Chicago: Quadrangle Books, 1960). Cited by James E. Dougherty and Robert L. Pfaltzgraff, Jr., Contending Theories of International Relations (Philadelphia: J. B. Lippincott Co., 1971), pp. 271-2.

motion a "self fulfilling prophecy?" In the latter case, said Richardson, the "reaction coefficient" would indicate even greater rearmament by A leading sooner or later to the point of war.<sup>18</sup>

The Richardson "action-reaction" model, which became a touchstone for arms control theory among "political" scientists as well as physical scientists throughout the 1960s and 1970s, implied that "inaction" would disrupt this largely mechanical cycle, and that mutual compliance would ensue almost like a law of physics. The declining efficacy first of foolproof compliance controls in general, and then of on-site inspection in particular, had threatened to devastate theories of verifiable arms control until models like Richardson's categorized the Soviet compliance question in terms more Newtonian than political. As verification theories progressed into the 1960s, they remained, therefore, questions of a technical nature to be addressed by our scientists. Jerome B. Wiesner, who had left his position as Director of the Research Laboratory of Electronics at the Massachusetts Institute of Technology to become Chairman of President Kennedy's Scientific Advisory Committee, promptly

---

<sup>18</sup>Dougherty and Pfaltzgraff, p. 272.

picked up this gauntlet and called for new theories on arms control and its verification.<sup>19</sup>

Before entering full time public office for the first time in 1961, Wiesner had become fully immersed in the technical approach to political problems. Just as Dr. Oppenheimer had been technical director of the Manhattan Project, Dr. Wiesner had been consulted on a series of military projects in the 1950s, and in 1957 was named technical director of the famous Gaither Committee. It was in that position that Wiesner "came to realize that, given the secrecy of the Soviet Union, [U.S. intelligence] assessments were largely imaginary," and that:

...we were in an arms race not only with the Russians but with ourselves as well. The Russians were caught in the same trap. The thought was inescapable that the more either side tried to buy security, the tighter the trap became.<sup>20</sup>

---

<sup>19</sup>See Donald G. Brennan, ed., Arms Control, Disarmament, and National Security (New York: George Braziller, 1961). In Wiesner's Forward, he describes the purpose of the Reader as "to stimulate public discussion (p. 14)" and to "stress the need for intensive study (p. 15)." Wiesner also expressed his conviction that "nations must be willing to try out the results of these carefully thought-out studies without insisting on a blueprint to completion (p. 15)."

<sup>20</sup>Daniel Lang, "A Scientist's Advice," in Daniel Lang, ed., An Inquiry into Enoughness (New York: McGraw-Hill Book Co., 1965), p. 85. Lang is quoting Wiesner evidently from personal interviews.

In 1958, as technical director of a sixty-man U.S. delegation to the Conference on the Prevention of Surprise Attack, Wiesner had weighed various technical answers to surprise attack prevention. Later the same year as a member of Eisenhower's Scientific Advisory Committee, Wiesner wrestled with the question of a test ban, and in 1959 returned to chair a panel of the same committee devoted to "arms control in general" instead of just technical aspects of testing. Aside from the "action-reaction" awareness he had acquired in 1957, Wiesner's explanation for verifiable arms control's failure was akin to what E. H. Carr once labeled the "ignorance hypothesis." It was Wiesner's conviction, for example, that American delegations to disarmament conferences "had very inadequate technical preparation to support them in the discussions," and that the Soviets "were even less well prepared."<sup>21</sup>

To eliminate these unnecessary knowledge barriers, and to achieve "adequate understanding of one another's

---

<sup>21</sup>Jerome B. Wiesner, "Comprehensive Arms - Limitation Systems," in Donald G. Brennan, ed., Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), p. 200. The same article appears in a Daedalus, issue on "Arms Control," 1960 (Vol 89, No. 4). It also appears in Jerome B. Wiesner, Where Science and Politics Meet (New York: McGraw-Hill Book Co., 1961). This article actually predates "Inspection for Disarmament," but was less specific about methods of verification.

security motivations," according to Wiesner, both sides must exercise "a considerable degree of objectivity," and both must acquire "a sufficient understanding of the technical characteristics and actual components of inspection systems to permit relatively objective assessments to be made."<sup>22</sup> If this "point of view" were accepted by both sides, said Wiesner, many different agreements would be possible. He thus devoted himself and, presumably, the "scientific advice" he later gave Kennedy, to a "point of view" that respected "actual and possibly even imagined security needs of the other side."<sup>23</sup> Since "the negotiability of any arms-limitation proposal will be determined, to a considerable degree by the inspection and control measures it requires,"<sup>24</sup> his empathy for real or imagined Soviet security needs would focus on the problem of inspection during disarmament.

Before discussing Wiesner's technical bridge theories, however, it is useful to examine how he came

---

<sup>22</sup>Ibid., p. 203. Emphasis mine: it will be argued later in this project that both sides specifically were making assessments that were "objective" relative to their conflicting political vantage points.

<sup>23</sup>Ibid., p. 204.

<sup>24</sup>Ibid., p. 209. Emphasis mine: note cause and effect relationship between verification and disarmament.

to understand the "real or imagined" Soviet security needs that would guide his theories. In March 1960 at the invitation of the Soviet Academy of Sciences, Wiesner had made a trip to the Soviet Union which he later described as one of his most informative excursions abroad.<sup>25</sup> Visiting with "ordinary Soviet citizens" through an interpreter provided by the Academy, Wiesner became convinced (just as Rabinowitch had "discovered") that the Soviets "would never go along with any arms control arrangement unless Germany was included."<sup>26</sup> During this trip to the U.S.S.R. and a second one later the same year, and through his extensive participation in the Pugwash conferences, Wiesner formulated and reinforced his "point of view." As one of his admirers has described this learning process:

Wiesner found the conferences illuminating .... The Conferences...gave him a chance to become acquainted with his colleagues from behind the Iron Curtain. Strolling with them through the Vienna Woods or sitting with them on the veranda of a ski lodge, he learned a good deal about their conceptions of history, their personalities and their prejudices. During these conferences they tended -- as did the Westerners -- to give comparatively free rein to their thoughts.<sup>27</sup>

---

<sup>25</sup>Daniel Lang, "A Scientist's Advice," p. 91.

<sup>26</sup>Ibid., p. 92.

<sup>27</sup>Ibid., p. 93.

One result of this "free rein," was Wiesner's discovery that Soviet scientists' thinking did not take a monolithic form:

One wing, it was apparent, leaned toward the view that Russia must accumulate superior weapons in order to deter the West from its 'war plans;' another believed that the arms race itself must be stopped while there was still time.... It was essentially the same division that existed in the West, Wiesner realized....<sup>28</sup>

Wiesner concluded from the identity of scientific debate in East and West that scientists were able to rise above politics and address issues of "survival" rather than just of "conflicting ideologies." Moreover, continues his laudatory biographer:

It was a bond that made it possible for them to reveal their fears. The Russians, it appeared, feared the spread of nuclear weapons, particularly to West Germany, and resented the fact that their country was ringed by American missile bases. And the Westerners, the Russians learned, considered the Soviet dictatorship entirely capable of springing a surprise attack. The scientists pondered the question of how these misgivings might be lessened by technical means....<sup>29</sup>

Wiesner's 1961 "Inspection for Disarmament," was something of a landmark article because it would later become a strawman for Richard Falk and other idealists who wanted even greater relaxations in American

---

<sup>28</sup>Ibid.

<sup>29</sup>Ibid., p. 94.

compliance policy than Wiesner had contemplated. But it is useful for this review of literature as well, not because Wiesner's compromises were particularly original, but because they were so boldly stated and so matter-of-fact in their apolitical comprehension of the problem. Wiesner, whose principal work until then had been Modern Physics for the Engineer, was to become prolific among theorists of technical verifiability over the next two decades. As such, his work presents a useful opportunity to demonstrate how such thinking evolved over time. Wiesner's continual technical accommodations, which were actually political compromises in American compliance policy, were presented as scientific problem-solution sequences, often as if he were explaining a mathematics problem.

Like Oppenheimer, Wiesner would begin his political analysis somewhat apologetically with the acknowledgement that: "There is hardly a subject of which I would profess to have some knowledge that I would approach with more trepidation."<sup>30</sup> Yet he would proceed boldly with good news for arms control advocates who were frustrated by the compliance problem:

---

<sup>30</sup>This is the opening sentence of Jerome B. Wiesner, "Inspection for Disarmament," Arms Control Issues for the Public (Englewood Cliffs: Prentice-Hall, Inc., 1961), p. 112.

"Fortunately it is easy to show that 'certain detection' is not necessary."<sup>31</sup> Something less than certainty was "wholly adequate," for Wiesner, because "one can only imagine what would be required to develop the complex technical systems capable of providing certain detection of the smallest infraction . . . ." What was actually needed, according to Wiesner, was "adequate inspection with minimum intrusion at [the] lowest cost." The main requirement to be placed on such an inspection system was that it must provide "adequate likelihood of detecting serious violations."<sup>32</sup> Left without definition in Wiesner's theory of verification, of course, were the meanings of "small infractions," "adequate inspection," "minimum intrusion," "adequate likelihood," and "serious violations."

---

<sup>31</sup>Ibid., p. 113.

<sup>32</sup>Ibid. Emphasis mine. Wiesner's argument about the barely imaginable costs of such a system was based on strange economic logic: Considering the cost of "a relatively simple technical problem like that of detecting submarines," which Wiesner estimated to be "hundreds of millions of dollars," one begins to understand the scientific and technical effort that would be required to build a "perfect inspection system." It is also noteworthy that Wiesner's only conceivable alternative to uncertainty was complex technical systems rather than political understandings and provisions.

In addition to a language which Wiesner evidently considered apolitical, there was his presumption that the amount of monitoring required for any given agreement was itself subject to rigid technical measurement:

The level of intensity of inspection required to monitor a disarmament agreement is in some way proportional to the degree of disarmament. In other words, the more completely weapons of all kinds are eliminated, the greater will be the necessity for an inspection system sufficiently sensitive to discover small discrepancies in the size of remaining forces. It is also clear that little inspection is needed to monitor adequately minor changes in military posture.<sup>33</sup>

To date, declared Wiesner in 1961, the major problem inhibiting arms control agreements had been that there were not enough weapon system studies to establish limits on "the uncertainty tolerable in an inspection system." Only with such an understanding, he explained, could we ever resolve the conflict between American "fear of providing inadequate detection," on the one hand, and Soviet "reluctance to accept large, costly, and intrusive inspection systems," on the other. By phasing a system of controls so that no nation's security was ever in jeopardy, Wiesner believed that Soviet and American negotiators could

---

<sup>33</sup>Ibid., p. 114.

reach agreements more quickly than in the past. He would begin this process by spelling out precisely how much uncertainty the U.S. could tolerate regarding Soviet compliance.

Ground inspection, which Wiesner considered "the most intrusive, the kind [of inspection] which closed societies would be most reluctant to accept," had been a particularly troublesome stumbling block to disarmament. Fortunately, however, "ground inspection is not necessary except to supplement and to check on mechanical inspections when the machine gives some basis for suspicion." Wiesner and the rest of the scientific community had come a long way from the "foolproof" standards of earlier years and now regarded inspection as merely a supplement to mechanical monitoring, rather than as a reasonable device in and of itself. Further research in mechanical means of monitoring would be needed according to Wiesner; but as if he were drawing the line on further compromise, he also assured his readers that:

...there will always be need for some ground inspection. With the methods of detection we have today, ground personnel [are] needed for various purposes -- to supplement aerial and space techniques in checking on military and industrial installations, facilities and activities; to inspect operations, examine records, and scrutinize personnel..., to

carry out interrogations of personnel in such facilities...<sup>34</sup>

Thus, even though American uncertainties about Soviet compliance would be necessary, these uncertainties (security risks) would decrease over time as a result of inspections phased according to the level of disarmament undertaken. As weapon stockpiles decreased, inspections would increase -- a combination which, over time, builds confidence in mutual compliance and reduces uncertainty proportionally.<sup>35</sup> The task of inspection was "verification of the authenticity of the data provided." Proof, said Wiesner, "need not be absolute; it must be adequate." Sampling techniques, for example, so long as they were "random," would provide adequate safety without complete inspection. One reason why such methods would be reliable, according to Wiesner, was because the object of an inspection system was really simply "to deter a would-be violator...by making it highly probable that his violation would be detected." A central premise of the "deterrence" argument, of

---

<sup>34</sup>Ibid., p. 118.

<sup>35</sup>Ibid., p. 137. The diagram that accompanies this logic, which Falk later called the "Wiesner Curve," represents a simple portrayal of the mechanical problem of inspection.

course, was that the Soviets would only risk being "caught" if the military benefits of successful concealment warranted taking the chance:

If the dangers due to a particular violation are great, the need for detection and the efforts to detect will be intense. If relatively little advantage would accrue to the violator from a particular violation, it is less likely tht he would violate and there is less urgency for detection.<sup>36</sup>

Wiesner understood the principal obstacle to safe disarmament as the lack of means for detecting hidden stockpiles of weapons. Repeating the two requirements once articulated by Oppenheimer, Wiesner argued that the inspection system "would have to be able to verify that the reduction to [the agreed] level took place, and that there are no clandestine increases later....[and] until this problem is solved, it is possible for some clandestine stockpiles to exist undetected."<sup>37</sup> Resolution of the hidden stockpile problem would be categorically ruled out, of course, by

---

<sup>36</sup>Ibid., p. 125. This key assumption of "detering" violations was recently proved incorrect by systematic Soviet violations of the 1972 "Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological and Toxin Weapons and Their Destruction." According to the theory, violations that would be less significant militarily need not be closely monitored. This will be discussed in more detail in Part Three of this project.

<sup>37</sup>Ibid., p.127 and 126. I have combined two of Wiesner's statements in the reverse order in which he presented them.

Soviet refusals to consider verification "of armaments" as discussed in Chapter Three. Thus, as Wiesner had correctly anticipated, the possibility "for some clandestine stockpiles to exist undetected" would persist until the present day.

In what seems anachronistic by comparison with SALT's verification criteria, Wiesner went on to spell out what he then considered a minimally acceptable control system to prevent hidden missiles:

The control system would require the party to the agreement to inform the inspecting authority how many missiles it had manufactured, how many it was now giving up to reduce to the required levels, [and] where these remaining missiles are located. The control authority would check production facilities and records [and] interrogate personnel in missile development and production to check the report on the number of missiles that were produced in the past. ...By aerial reconnaissance supplemented by ground inspection, the entire area would be combed for clandestine missiles.<sup>38</sup>

Inspection authorities would therefore require the power to examine records, interrogate personnel, station permanent inspectors, examine transportation records and government fiscal records, conduct aerial reconnaissance and physical searches for undeclared facilities, and perform industrial production inspections.<sup>39</sup>

---

<sup>38</sup>Ibid., p. 128.

<sup>39</sup>Ibid., p. 129.

These suggestions "do not contemplate 'good faith,'" cautioned Wiesner. They were simply ways to minimize the compliance uncertainty that would necessarily accompany arms control and disarmament for the U.S. "The hope for disarmament in a context of acute distrust between powerful nations lies in solutions to the problems of inspection,"<sup>40</sup> said Wiesner, but in order to bridge that "acute distrust" chasm, some uncertainty would have to be accepted. The measures outlined in "Inspection for Disarmament" may have indicated that Wiesner would tolerate very little such uncertainty in 1961. What he did not seem to comprehend, however, was that once it became official that American compliance policy could live with uncertainty about Soviet behavior, a political threshold of some significance had been crossed. Thereafter, the debate over "how much" disarmament could be agreed to would be a function of "how much" uncertainty could be tolerated regarding Soviet compliance. Wiesner's 1961 standards may have been fairly rigid, but reasonable people might have greater fear of war, exaggerated perceptions of nuclear weapons' effects, less insight into Soviet intentions, or simply higher pacifistic ideals.

---

<sup>40</sup>Ibid., p. 46.

No matter whose policy preferences were under consideration, however, or what conclusions were thereby necessitated, the argument had taken on a new dimension. As in the past, scientists would still promise new technological bridges in the form of greater seismic sensitivity, better airborne optics, or the increasing use of space technology; and such enhancements would still portend parallel progress in security negotiations. But now even if the upper limits of technology were inadequate for the arms control measures contemplated, even if the requisite technology were prohibitively expensive, and even if supplementary inspections were declared by the Soviets to be intrusive, there would remain policy alternatives by which the U.S. could sustain a process of negotiation. First, according to the "Wiesner curve" the U.S. could always agree to whatever measures would be accommodated by legitimate monitoring methods in being. Although this axiom would yield to the Soviets considerable power in selecting the substance of an agreement, it was nevertheless consistent with the cause and effect (or "necessary and sufficient") policy articulated by Eisenhower in 1955 at Geneva. Secondly, however, and entirely new to the declaratory policies of the 1960s, was the identification of American

compliance policy in and of itself as a variable that was subject to debate and compromise. For those Americans politically or morally committed to disarmament negotiations with the secretive Soviet government, the addition of yet another "enabler" of agreements -- another one that could be manipulated by the U.S. with or without Soviet cooperation -- was a welcome breakthrough.

Wiesner's uncertainty principle was institutionalized in 1961 with the formulation of the Arms Control and Disarmament Agency which he had strongly encouraged,<sup>41</sup> and was integrated with public policy during the Kennedy Administration in a number of areas. During negotiations for a Comprehensive Test Ban, for example, the U.S. first agreed to a plan which would depend entirely on seismic detection stations located outside the Soviet Union -- so that the only "intrusion" on Soviet territory would be to inspect suspicious events that were detected. Then it was determined that an upper limit could be accepted on how

---

<sup>41</sup>See for example Jerome B. Wiesner, "The Relationship of Military Technology, Strategy, and Arms Control," Address at a Conference to Plan a Strategy for Peace, June 3, 1960, Arden House, Harriman, N.Y. Also in Where Science and Politics Meet, p. 176. In this address Wiesner urged creation of an agency with "a vested interest in arms control" in order to overcome government's hesitancy about accepting uncertainty in its compliance policy.

many such suspicious events could be investigated. Wiesner explains how the uncertainty principle enabled this progress:

First, fewer earthquakes actually occurred on Soviet territory than had been anticipated and many of them were out at sea, off the coast of the Kamchatka Peninsula where it would be extremely difficult to conduct clandestine tests. And secondly, we were no longer insisting on a system that had a high probability of detecting a single test, but were asking only for a high degree of assurance that it would find at least one of a significant series, i.e., perhaps one out of five.<sup>42</sup>

Without defining what he meant by a "high degree of assurance," or a "significant series" of tests, without reference to Soviet violation of the 1961 testing moratorium (and the President's resultant beliefs about inspection), and without regard for the intervening Cuban missile problem, Wiesner explained in 1965 that the U.S. could have gone even lower than "six or seven" inspections without jeopardizing "adequate security."<sup>43</sup>

But by 1965, when even these relaxed standards had been rejected by the Soviets, new premises and compliance policies were clearly needed. The "central block" to progress in disarmament was still the

---

<sup>42</sup>Jerome B. Wiesner, "Learning About Disarmament, Introduction," Where Science and Politics Meet, p. 167.

<sup>43</sup>Ibid.

conflict between American fear of Soviet secrecy and Soviet objection to inspection, Wiesner then explained; but since 1961 much had happened to "moderate these positions and spur hopes for further accommodations."<sup>44</sup> The most significant of the new developments was familiar:

Technical developments have greatly improved the United States intelligence capability and made possible an accurate picture of U.S.S.R. military forces.<sup>45</sup>

But more had transpired since 1960 than just the evolution of space based reconnaissance and the development of improved technical intelligence capability. According to Wiesner, reality itself had changed regarding perceptions of Soviet threat:

U.S.S.R. military force, particularly in the strategic field, but in conventional forces as well, is not nearly so great as it was once believed to be. As a consequence, our disarmament proposals, and especially the inspection requirements, can be less stringent. Because of our much improved knowledge, the inspection requirements can be based on reliable estimates of Soviet forces, not upon imagined, and vastly exaggerated figures. Furthermore, we can depend upon our unilateral capabilities for some of the information needed to assure us that agreements are being fulfilled. These factors...have led the U.S. to reduce significantly the amount of inspection judged to be necessary for a disarmament system. In retrospect my [1960-61] papers appear too

---

<sup>44</sup>Ibid.

<sup>45</sup>Ibid., p. 170.

conservative in their inspection requirements. In fact, I now believe that some of our current proposals can be relaxed even more, particularly in respect to inspection requirements in the early stages of disarmament.<sup>46</sup>

According to this logic, which was advanced just four years before SALT got formally underway in Helsinki, more "knowledge" was now available because better technical means of intelligence were in use. Since this new knowledge "confirmed" that earlier threat computations had been overstated (i.e., that American intelligence had been deceived), a relaxation in future threat estimation requirements was now in order. The "hidden stockpiles" problem, for example, must have gone away because research shows no subsequent mention of it by Dr. Wiesner. So great, in fact, had recent intelligence breakthroughs been, in Wiesner's opinion, that they had "significantly reduced the value of secrecy to the Soviet military establishment...."<sup>47</sup>

According to Robert Perry, 1965 is the year when several members of the arms control community began arguing (and concluding) that treaties limiting numbers and types of missile launchers could be "adequately

---

<sup>46</sup>Ibid.

<sup>47</sup>Ibid. Emphasis mine.

verified" without inspections.<sup>48</sup> In October 1967 Assistant Secretary of Defense Paul Warnke suggested publicly that the U.S. could overcome the inspection problem by relying on "our own unilateral capability for verification of Soviet compliance." After July 1968, according to John Newhouse, the U.S. was privately prepared to drop inspection completely from its arms control requirements.<sup>49</sup> Thereafter, the Soviets made it plain that they intended to differentiate between permissible "national means" and "espionage," but to this day no treaty language clarifies that distinction.<sup>50</sup>

Today, Wiesner's convictions are a logical culmination of the directions his thinking had taken him by 1965:

At the moment, neither the U.S. nor the Soviet Union has a meaningful strategic advantage. A window of vulnerability does not exist. Furthermore, it is almost impossible to imagine how either side could achieve a usable advantage . . . . Thus, now is the time for a disarmament agreement, one

---

<sup>48</sup>Robert Perry, The Faces of Verification: Strategic Arms Control for the 1980s (Santa Monica: The Rand Corporation, p-5986, August, 1977), p. 5.

<sup>49</sup>John Newhouse, Cold Dawn: The Story of SALT (New York: Holt, Reinhart, and Winston, 1973), p. 99.

<sup>50</sup>Perry, p. 5.

that would freeze all missile developments leaving both sides with an unquestioned deterrent but without any plausible threat of a first strike.<sup>51</sup>

Left undefined in this argument, of course, are the meanings of a "meaningful strategic advantage," "almost impossible," and a "freeze" on "all missile developments." Moreover, in the entirety of his 1982 article, not once does Wiesner advance the problem of compliance or how a "freeze" on "missiles," let alone on warheads or bombs, could ever be confirmed without liberal freedom of inspection. In short, his thinking has now come full circle: from his early arguments requiring minimal arms control and aggressive inspection, to today's advocacy of enormous strides toward disarmament with no mention whatsoever of monitoring or verifying compliance. Wiesner's thinking has been, by and large, a reflection of an evolving consensus among scientists involved in arms control. He has not been alone with these simplifications either today or during the time it took his thinking to arrive where it is. His forthright statements of assumptions, especially as they relate to the "enabling" power of technical bridges across a political gap, simply state more clearly than others the evolving consensus among

---

<sup>51</sup>Jerome B. Wiesner, "Russian and American Capabilities," The Atlantic Monthly, July, 1982, p. 53.

American scientists during the decade leading to SALT.

Jerome Wiesner's work has provided a useful focal point for this review because of his high standing in both the technical and governmental communities, his persistent efforts to link those communities, his devotion to the issue of compliance policy, and his remarkable tenure in each of these undertakings. One should exercise care, however, to avoid undue attribution of a generation of thinking to a single mind. Seymour Melman, for example, edited his own 1958 Inspection for Disarmament for the purpose of defining "the necessary conditions for a workable inspection system needed to ensure compliance with a disarmament agreement."<sup>52</sup> Melman, who was a Professor in Columbia University's Department of Industrial and Management Engineering at that time, expressed his satisfaction with the text's "attempt to define the problem of inspection for disarmament on a scientific, technical basis...."<sup>53</sup> He then went on to articulate a fundamental premise of his approach:

---

<sup>52</sup>Seymour Melman, Inspection for Disarmament (New York: Columbia University Press, 1958), p. ix.

<sup>53</sup>Ibid., p. x.

Let it be clear from the outset that perfection cannot be guaranteed here, nor in any natural or social phenomenon. Indeed, foolproof and flawless reliability in inspection for disarmament is not only unattainable; it is not necessary for workability.<sup>54</sup>

Melman's text then goes on to present some eighteen different approaches to the compliance control problem. Technical, economic, social, and even psychological mechanisms, many of which are among Wiesner's solutions as well, recur throughout these articles.

Additionally, a series of articles presented in a special issue (Fall, 1960) of Daedalus and reprinted in Donald G. Brennan's Arms Control, Disarmament, and National Security employ many of the same assumptions and solutions as Wiesner's work. Bernard T. Feld's "Inspection Techniques for Arms Control"<sup>55</sup> surveys the methods of inspection proposed, agreed upon, or analyzed in the literature up until that time and concludes that there are two specific compliance related problems in which "further research is most

---

<sup>54</sup>Melman, "General Report," Inspection for Disarmament, p. 3.

<sup>55</sup>Bernard T. Feld, "Inspection Techniques of Arms Control," in Donald G. Brennan, ed., Arms Control, Disarmament, and National Security (New York: George Braziller, 1961), p. 317.

urgently needed." The first of these is the "stockpile problem" or, as Feld describes it,

...the question of the degree of certainty with which it may be possible to ascertain (by a study of past records, inventories, plant characteristics, etc.) the amount of weapons material which may have been sequestered by a nation, or by an influential group within the nation, before the institution of a control agreement.<sup>56</sup>

The second problem, how to control whatever research and development constraints are assumed in an agreement, concerned Feld because most known compliance controls were "unstable with respect to a technical breakthrough capable of providing a decisive military advantage to one member of the agreement."<sup>57</sup>

In his "Basic Requirements of Arms Control,"<sup>58</sup> Robert Bowie agrees that "infallibility is not the proper criterion" in evaluating compliance controls. In effect, Bowie's criterion lies in the "deterrence" of cheating on agreements:

Inspection should be viewed as a technique for reinforcing and maintaining the self-interest of the parties in the continued effective operation of the system. The restrictions and the related inspection

---

<sup>56</sup>Ibid., p. 330.

<sup>57</sup>Ibid., p. 331.

<sup>58</sup>Robert R. Bowie, "Basic Requirements of Arms Control," in Brennan, ed., Arms Control, Disarmament and National Security, p. 43.

should be considered as a system of deterrence. Their combined aim should be to create risks of detection which a rational participant would not consider worth running. He need not believe that the inspection techniques are certain to discover the violation: he need only be convinced that the odds of discovery are too high to make the attempt worthwhile in the light of possible benefits and costs.<sup>59</sup>

For Bowie, however, not only is the rational calculation of costs and benefits a fairly similar process across cultures, but violations that might "shock and solidify world opinion" are deterred by the possibility of detection -- yet another justification for uncertainty in one's compliance policy. The deterrence theme recurs in the works of Leonard S. Rodberg,<sup>60</sup> Lawrence S. Finkelstein,<sup>61</sup> and Roger Fisher<sup>62</sup> as well. Ithiel De Sola Pool,<sup>63</sup> Lewis C.

---

<sup>59</sup>Ibid., p. 49.

<sup>60</sup>Leonard S. Rodberg, "The Rationale of Inspection," in Seymour Melman, ed., Disarmament: Its Politics and Economics (Boston: The Academy of Arts and Sciences, 1962), p. 68.

<sup>61</sup>Lawrence S. Finkelstein, "The Uses of Reciprocal Inspection," in Melman, ed., Disarmament: Its Politics and Economics, p. 82.

<sup>62</sup>Roger Fisher, "Internal Enforcement of International Rules," in Melman, ed., Disarmament: Its Politics and Economics, p. 99.

<sup>63</sup>Ithiel De Sola Pool, "Public Opinion and the Control of Armaments," in Brennan, ed., Arms Control, Disarmament, and National Security, p. 333.

Bohn<sup>64</sup> and Seymour Melman,<sup>65</sup> discuss various "non physical" methods such as public reporting, the use of lie detector tests, and the enforcing power of world public opinion. Many of the familiar "scientific" solutions discussed here are also reviewed in Arthur T. Hadley's The Nation's Safety and Arms Control.<sup>66</sup> Hadley's text is a report based on a 1960 Summer Study among a group of leading American scientists that included Jerome Wiesner.

The scientists, of course, represent only a single perspective on arms control and its relationship with compliance policy. Others will be examined in the remainder of this chapter. But the scientists are worthy of special consideration because their "solutions" have been integral to American arms control policy for more than a generation now, and because science is widely perceived both to have necessitated and enabled arms control. As will be discussed in Chapter Six, the significance of "National Technical Means" cannot be overstated among those factors that

---

<sup>64</sup>Lewis C. Bohn, "Non Physical Inspection Systems," in Brennan, ed., Arms Control, Disarmament, and National Security, p. 18.

<sup>65</sup>Melman, ed., Inspection for Disarmament, p. 38.

<sup>66</sup>Arthur T. Hadley, The Nation's Safety and Arms Control (New York: The Viking Press, 1961).

made the SALT era possible. Many of the assumptions, policy premises, and world views discussed in this section made the use of the technical "bridge" possible from an intellectual standpoint and seemingly requisite from an ethical standpoint. Furthermore, the perspective brought to bear on diplomacy by the Western scientific tradition, in contrast with the power politics perspective that has characterized Soviet diplomacy, is worthy of particular study and understanding. In short, the theory of verifiable arms control generated by the American scientific community made theories by legal scholars both possible and necessary, and reactions by skeptics inevitable.

## 2. The Lawyers

A cynic might suspect legal scholars of supporting the formulation of treaties for the same self serving reasons any profession advocates status enhancing institutions. One could ascribe the same degrading motivations to scientists, of course, just as spokesmen of both groups commonly accuse military specialists of resisting arms control for the sake of self aggrandizement. On the other hand, one could just as easily assume that representatives of all three groups act on the basis of self interest simply by selecting professions which hold ideals akin to their own, and

which therefore afford goals that are compatible with their consciences as well as their skills. For whatever value oriented or self serving reason one chooses to ascribe, Western legal experts have accrued a record of peace perpetuating treaty suggestions that is as long as it has been futile. The postwar nuclear disarmament and arms control debate has offered no exception.

From its very inception, for example, the United Nations has been looked upon by legal idealists as a potential forerunner to global disarmament and world government, as well as an institutionalized mechanism for law enforcement. To review the "peace through law" literature, a vast and multidirectional tradition with roots in the nineteenth century and beyond, is clearly beyond the scope of the present undertaking. Even as it relates to postwar nuclear disarmament and arms control the international legal tradition's quantity would be difficult to overstate, and no effort will be made here even to review its many and varied premises. Several contributions of the international law literature, however, have directly influenced modern thinking as it relates to issues of arms control compliance.

American declaratory policies discussed throughout this paper, attributed to Presidents and arms control theorists alike, have recurringly specified two reasonable criteria for "adequate" compliance controls.<sup>67</sup> The first criterion is that when the Soviets commit themselves to an agreement requiring the performance of certain activities, the U.S. should be able to assure its public that those activities are in fact being accomplished. The second criterion, the more difficult of the two, requires that when certain behaviors or activities are prohibited, the U.S. ought to be able to certify to its public that those undertakings are not in progress. Neither one of these is a simple task when the object of attention is a secretive society, but both are particularly difficult

---

<sup>67</sup>See for example the discussion in Chapter Four, in which Truman is quoted as demanding that disarmament's safeguards must give "immediate warning of any violation," and that disarmament must be "policed continuously and thoroughly." In the same chapter, see Oppenheimer's requirement that inspectors must "see that no enterprises are being carried out which are not allowed," and "that the allowed ones are really doing what they say they are doing." In the same chapter see Presidential Advisor John J. McCloy's insistence to the Soviets that "verification" must ensure "that not only agreed limits and reductions take place, but also that retained armed forces and armaments do not exceed agreed levels...." In Chapter Five, see the discussion on Jerome Wiesner's concerns about hidden stockpiles, where he insists that verification must ensure "that there are no clandestine increases later...."

when that society is also presumed to be intentionally deceptive in such matters.<sup>68</sup> But every American President since Truman has articulated a compliance policy that specifically excludes reliance on trust. Since, logically, this necessitates compliance policies based on distrust, monitoring capabilities have to be fairly pervasive in order to "enable" security treaties, but only if both criteria for adequate compliance are rigidly required.

It is a fairly straightforward matter to accomplish the first criterion -- that of disclosing compliances; but it is another matter altogether to accomplish the second -- that of confirming the absence of violations -- because "proving a negative" is a difficult thing to do. American willingness to accept enormous uncertainties with regard to the second criterion has been necessary to the continuation of negotiations, of course, ever since the Soviets refused to allow verification "of armaments" as discussed in Chapter Four. But this relaxation of compliance policy has been supported by international legal theory as

---

<sup>68</sup>In Part Three of this project it will be shown that the presumption of Soviet deceptive inclinations, although a legally imposed requirement on those who assess compliance, is seldom taken seriously because the "benefit of the doubt" is the only framework in which Soviet behavior can often be called compliance.

well. International law has never been particularly potent in matters requiring enforcement, and is therefore somewhat inappropriate in situations that call for prompt and uncompromising identification each and every time its terms are violated. Louis Henkin, Professor of Constitutional Law at Columbia University, thus steers our attention away from the problem of violations and enforcement:

Violations of law attract attention and the occasional important violation is dramatic; the daily, sober loyalty of nations to the law and their obligations is hardly noted. It is probably the case that almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time. Every day nations respect the borders of other nations, treat foreign diplomats and citizens and property as required by law, and observe thousands of treaties with more than a hundred countries.<sup>69</sup>

By focusing on the first rather than the second of the two criteria often demanded regarding adequate security during disarmament's implementation, Henkin is able to argue that international law has relevance as a mechanism for compliance control. Legal scholars of the postwar era have gone to great lengths to establish this

---

<sup>69</sup>Louis Henkin, How Nations Behave (New York: Council on Foreign Relations, Columbia University Press, 1979), p. 47. Emphasis his. Henkin notes in an aside, that agreements registered at the UN number more than ten thousand, and that thousands more are unregistered.

position. In 1958 Henkin wrote a book that revealed numerous Constitutional barriers to the widespread presence of foreign inspectors on American soil. He pointed out that in order for such inspection to provide reasonable confidence, it would have to investigate weapons technology, production, storage, maintenance, transportation, and designed use on a mutual and reciprocal basis. Investigators concerned about the problem of concealment may thus be authorized to enter factories or even the homes of private American citizens with Fourth Amendment search and seizure rights jeopardized accordingly. A vast labyrinth of state and local legislation would thus be called into question, suggested Henkin, and citizens' protection from abuse may no longer be possible by traditional means. In effect, Henkin was saying that in order for inspection provisions to provide Americans with confidence about both criteria regarding Soviet compliance, accommodations that undermine sacred Western traditions may be necessary as well. The clear implication was: is on-site inspection really worth that price? <sup>70</sup>

---

<sup>70</sup>Louis Henkin, Arms Control and Inspection in American Law (Westport: Greenwood Press, 1958).

Similarly Harold Berman and Peter Maggs, who have made careers out of the study of Soviet legal traditions, examined Soviet law and raised a number of parallel questions about the rights of Soviet citizens as intruded upon by a hypothetical American license to inspect.<sup>71</sup> Although their work is less detailed Henkin's, Berman and Maggs offered it as a companion piece toward comparative analysis of international inspection from a legal point of view. Noting that the Soviet government could obviously change its laws to conform to a disarmament agreement it supports, the authors argue that this would be less automatic than it appears, that impediments to such intrusion are rooted in the Soviet legal and political traditions, and that these could not be eliminated without considerable effort and imagination and possibly not at all. The combined effects of a unitary political and legal structure, the traditional use of Soviet law as a means of forming public opinion, and the commonality of "secret legislation," prove to be formidable inhibitors to "extensive inspection" (i.e., the level of inspection needed to satisfy the second criterion

---

<sup>71</sup>Harold J. Berman and Peter B. Maggs, Disarmament and Inspection Under Soviet Law (Dobbs Ferry: Oceana Publications, Inc., 1967).

for adequate compliance verification). The authors thus conclude that since no system of international inspection could ever give 100 percent assurance of compliance, the U.S. should endure certain amounts of trust and accept the associated security risks in the interest of world peace.

Richard Barnet and Richard Falk picked up on these themes in their 1965 Security In Disarmament in which the necessity of greater trust emanates from the following logic:

Indeed it is the recognition of their powerlessness to impose their will by force that has made the great nations consider disarmament as a possible strategy. Yet when a disarmament measure is under consideration, both the policy maker and the citizen tend to demand a near-perfect confidence in the ability to control the future.<sup>72</sup>

The logic is faulty, of course, because the premise is incorrect. The U.S. has never justified security negotiations on the basis of "powerlessness," but on the assumption that related agreements could produce security as well as competition could and at a lower cost and risk. The Barnet/Falk premise, however, is a product of their preferred view of the overall process of inspection:

---

<sup>72</sup>Richard J. Barnet and Richard A. Falk, eds., Security in Disarmament (Princeton: Princeton University Press, 1965), p. 7.

Inspection requirements should be judged on the premise that disarmament has come about as a result of a decision to create a new relationship based on recognition that major armaments are impractical instruments for carrying on national rivalries.<sup>73</sup>

Their conclusions are flawless once the premise is accepted. If the purpose of negotiations is to create a "new relationship" based on trust, then the process of getting there probably ought to be based on trust as well; as Barnet puts it:

the inspection system accompanying comprehensive disarmament should concentrate not on providing absolute assurance that no warmaking powers exist, but rather on encouraging existing incentives to make the new relationship work....<sup>74</sup>

For this reason, says Barnet, inspection should provide "reassurance as to intentions" (i.e., our "first" criterion), rather than with "verifying the absence of weapons" ("second" criterion).<sup>75</sup> An inspection system that would enforce disarmament under the assumption of a "high incentive to cheat," by comparison, would be "staggering," according to Barnet. No inspection system has ever been pervasive

---

<sup>73</sup>Richard J. Barnet, "Inspection: Shadow and Substance," in Barnet and Falk, eds., Security in Disarmament, p. 31.

<sup>74</sup>Ibid.

<sup>75</sup>Ibid., p. 32.

enough to assure security under such conditions, he explains. Even the experience under a coercively imposed Treaty of Versailles validates this conclusion by suggesting the following lessons:

First, inspectors did not, both because of political obstacles and lack of personal initiative, exercise most of the inspection rights accorded under the treaty. Second, the inspection process did not deter widespread evasion. Third, within a short time after the systematic evasion of arms restrictions commenced, inspection was not needed for detection. . . . Failure to act was unrelated to the failure of the inspection system to uncover the violations.<sup>76</sup>

Similarly, says Barnet, evidence that secret violations are unlikely is abundant. German and Japanese violations of the 1922 Washington Naval Arms Limitation Treaty depended more on evasion of the "letter" of the prohibition than on outright clandestine naval construction. Communist violations of the Korean Armistice were blantly overt as well. Even Soviet "violation" of the nuclear test moratorium, notes Barnet, was accompanied by no concealment efforts whatsoever as the Soviets openly attempted to defend their actions. "I am suggesting," concludes Barnet, "that in the postwar period the U.S. has been obsessed with a special case in the disarmament problem -- the

---

<sup>76</sup>Ibid., p. 20.

clandestine violation . . . .<sup>77</sup>

Thus for Barnet, the purpose of various schemes of inspection was to "disclose" compliance rather than to "verify" compliance. Inspection, as he (correctly) understood the problem, would always be inadequate for "verification" of compliance. This was as true when Barnet discussed it in 1965 as it had been two decades earlier when Oppenheimer first disparaged the "cops and robbers" approach. Oppenheimer, however, had reluctantly agreed to inspection as the only enabler of disarmament that was available. Barnet, rather than accepting a method of control that would never stand up "in court," simply changed the premise on which negotiations were based: instead of more inspection on the basis of low trust, there should be more trust because of inspection's shortcomings. Distrust, according to this logic could be overcome by patient adherence to the principle that an adversary's intentions are often at variance with his military capabilities. After all, said Barnet: "[i]t is essential that an inspection system communicate intentions as accurately as possible. Difficult as this is, it is less difficult than verifying the

---

<sup>77</sup>Ibid., p. 21.

absence of weapons."<sup>78</sup>

Similarly, Richard Falk challenged the logic of Jerome Wiesner's "Curve" (see previous section) according to which a complying nation grows progressively more vulnerable as the disarmament process proceeds.<sup>79</sup> Like Barnet, Falk takes issue with the "conventional wisdom" that inspection is a substitute for trust; instead, he argues:

it seems more plausible to assume that at the early stages of disarmament there is no significant impairment of security at the strategic level, even in the event of substantial noncompliance. What can an enemy do with the extra weapons it has retained or produced during Stage I in violation of an agreement to disarm?<sup>80</sup>

Having thus challenged Wiesner's argument -- that small amounts of inspection in the early stages of disarmament should increase in later stages as the complying state's vulnerability increases -- Falk went on to spell out the more hopeful assumption that:

It is hard to imagine a state willing to risk the instabilities of a disrupted disarmament process in order to gain some slight advantage in the arms race . . . . Since it is the threat to use nuclear weapons, not their actual use, that creates a political role for nuclear weapons, the secretness of a

---

<sup>78</sup>Ibid., p. 32.

<sup>79</sup>Richard A. Falk, "Inspection, Trust, and Security," in Barnet and Falk, eds., Security in Disarmament, p. 38.

<sup>80</sup>Ibid., p. 39.

violation in Stage I would eliminate much of the incentive to violate.<sup>81</sup>

According to this argument, the likelihood of violations decreases as their detectability decreases. Not only is "thorough" inspection therefore impossible, but it is also self-defeating because, far from "deterring" violations, inspection actually provides an otherwise nonexistent "incentive to violate." Regardless of whether or not cheating takes place, however, the consequences of even substantial adversarial noncompliance are so irrelevant to Falk that, like Barnet, he embraces a Soviet-American disarmament regime without extensive monitoring capabilities. "Our position" says Falk, "is that actual security early in disarmament depends neither upon trust nor upon inspection."

In this manner, Falk challenges the basic assumption of the "Wiesner Curve" according to which the quality of security increases in proportion to the level of inspection. One of the few firm stands Wiesner had taken on compliance policy was that, while the U.S. would accept mutual constraints on whatever security provisions the Soviets would submit to

---

<sup>81</sup>ibid.

inspection, at least there would be an agreed mechanism by which the risks associated with compliance uncertainty would be minimized. But Falk was challenging the fundamental supposition that more inspection necessarily increases the likelihood of detecting violations. In terms of our second criterion of adequate compliance verification:

Can an inspection system, however augmented, hope to cover the globe's surface in search of weapons caches and illegal facilities for the production and delivery of biological and chemical weapons?<sup>82</sup>

Wiesner, who had otherwise gone to great lengths to accommodate uncertainty in American compliance policy, subsequently acknowledged, after Falk's criticism, that his "Curve" logic had been "too conservative...[and] can be relaxed even more, particularly in respect to inspection requirements in the early stages of disarmament."

These two verification theorists were clearly moving toward a synthesis on a variety of related issues as well. Falk holds to the familiar theme,

---

<sup>82</sup>Ibid., p. 42. It would be interesting to know Falk's reaction now that "illegal production and delivery of biological and chemical weapons" by the Soviets has been discovered, even though our inspection system still cannot "hope to cover the globe's surface" in search of such formally prohibited caches. No doubt it is the premise rather than the conclusion that has been updated.

for example, that "high military payoffs" must exist in order for Soviet violations to be taken seriously. Having excluded the possibility of such payoffs in the early stages of disarmament, however, Falk thereby argues that violations are not to be matters of concern at all. Furthermore, Falk agreed with Wiesner that both sides should understand and respond to one another's "perceived security requirements," and since "the Soviet Union apparently associates its sense of security with the impenetrability of its territory," American demands for thorough inspection were clearly counterproductive at a time when enablers, not barriers, were needed for disarmament.

But aside from their convergence on these and many other aspects of bridge theory, Falk also went well beyond Wiesner in his effort to induce governmental acceptance of uncertainty. It was Falk's position, for example, not only that little monitoring was needed in the early phases of disarmament when violations were irrelevant, but that still less monitoring would be needed as disarmament proceeds. It was his opinion that "we must accompany the idea of disarmament with an expectation of political transformation," from which "trust and harmony would emerge to a much greater

extent than they exist today."<sup>83</sup> In other words the "Falk Curve" was the exact opposite of the "Wiesner Curve." Not only was considerably less inspection required by Falk than Wiesner in the "early phases," but less and less monitoring would be needed at each subsequent phase as well. Thus we see the theoretical underpinning of the ratchet effect in compliance policy, whereby the fact of negotiations' continuation presumes that a "political transformation" and steady erosion of early suspicions are in progress as well.

Legal theorists in these mid 1960s reflections were responding to twenty years of frustration on the part of those seeking national security by way of treaty negotiations. The politics of the era, having pitted two opposing ideological systems against one another, both with very powerful weapons, were perceived to have both dictated and foreclosed imaginative solutions. The years had been particularly unkind to those who, although concerned about aggressive Soviet military intentions, were nevertheless inclined toward mutually agreed upon constraints. Efforts to reconcile these disparate realities through inspection and monitoring schemes

---

<sup>83</sup>Ibid., p. 47.

that were unacceptable to the Soviets had clearly reached an impasse. Soviet secrecy, now regarded as a fact of life in the context of even the most well intentioned disarmament schemes, had been staunchly preserved despite numerous compromises in American compliance policy. Clearly new perspectives were needed if the "process" of negotiations was to continue.

By comparison with all previous and subsequent solutions to the conflict between Soviet secrecy and American distrust, the legal theorists were clearly the most straightforward in their advocacy of outright trust toward Soviet "intentions." Because trust was the mechanism that was most desired in a peacefully disarmed world, because inspection and other means of monitoring compliance could never satisfy both criteria of "adequacy," because violations were thought to fulfill no significant military or political purpose in the first place, but above all because bridge theories up until then had simply not yet successfully provided disarmament, new "enablers" of negotiation were in order and new uncertainties would have to be accepted. It is ironic that space-based reconnaissance technology was emergent among the tools of American threat assessment at roughly the same time that the Falks, Barnets, and Henkins were inviting our relaxation of

traditional compliance policies. When coupled with the presumption that the principal function of monitoring is the disclosure of compliance and the provision of reassurance as to an adversary's (trustworthy) intent, the satellites themselves would come to symbolize the modern notion of "adequate verifiability." Having thereby synthesized certainty with uncertainty, openness with secrecy, and control with trust, all in the form of "technical means of verification," the theorists would march into the SALT era confident that they had a workable solution to the postwar arms control paradox.

### 3. The Skeptics

Under the guidance of such theories of arms control as those reviewed in this chapter, the U.S. would enter the SALT era discussing provisions for "control" that had been unthinkable two decades earlier. Having committed itself, in principle, to negotiated arms control agreements with a still highly secretive adversary, the U.S. would, in effect, come full circle on the trust question. Although the theorists' reservoir of rationalizations for a relaxed compliance policy was a seemingly bottomless one, Soviet adherence to the terms of an agreement would be checked by unilateral American intelligence or not at

all. Yet little or no serious consideration seemed to have been given to the possibility of outright Soviet exploitation of this noncooperative environment.

On the contrary, the theorists had taken full advantage of their academic license to "assume" by insisting that violations were "deterred" by whatever likelihood there was of detection, that violations were "irrational" because of the inherent importance of a treaty, or that violations were "irrelevant" because of the alleged insignificance of clandestine advantages. These assumptions had ruled out more than just the strategic noncompliance hypothesis, however. The infinite possibilities between outright noncompliance on a scale so massive that concern would be self evident, on the one hand, and unequivocally cooperative adherence to "perceived security requirements" implied by each treaty provision on the other, were also beyond the scope of the theorists' perspectives. In retrospect it is now fairly common to worry about the political relevance of such "grey area" compliance patterns on the part of the Soviets. They have included consistent evasions of the spirit of agreements; exploitation of loopholes to gain even the most minor advantage; reinterpretation of ambiguous concepts whenever a potential benefit is remotely

possible; persistent "probing" to discover the upper limits of intelligence technology or the strength of will behind American compliance policy; and, of course, numerous cases of unabashed treaty violation as well.

The possibility of such mid-range compliance patterns by the Soviets, however, was evident to many who were without the benefit of today's retrospect as well. A review of the literature reveals that even while American compliance policies and the theories behind them were in transition, considerable skepticism challenged the logic of that transition and the assumptions on which it was grounded. Generally speaking, these skeptics differed from the scientists and lawyers on grounds of political perception. The skeptics saw no mutually exclusive distinctions between negotiation and confrontation, between cooperation and competition, between perceived and actual security requirements, or between secrecy in arms control and secrecy in war preparations. To the skeptics, the presumption that strategic deception by the Soviets would persist was not a matter of choice; it was axiomatic, historically derived, and not subject to review so long as the U.S.S.R. remained closed and secretive. As such, security was, to the skeptics, a matter of purely unilateral rather than "mutual" or

"international" concern, and arms control had value only to the extent that it demonstrably enhanced American security. Skeptics may have granted that American security was not incompatible with Soviet security, and many have pursued arms control on that basis, but not on speculative, wishful, or unsupported assumptions about Soviet good faith. Unlike the scientists and lawyers, the skeptics therefore worried more about the implementation phase of an agreement and the diplomacy of treaty adjudication and enforcement.

During ratification hearings for the 1963 Limited Test Ban Treaty, for example, the following exchange between Senator Russell Long and Dr Edward Teller specified several of the skeptics' concerns:

Senator Long: Is it not quite likely in the event these people were cheating on the treaty we would be in a position of suspecting rather than detecting?

Dr Teller: I think that it will be as you point out, much harder to prove that the treaty has been violated, than merely to detect the violation, and I think this is a very significant difference.

Senator Long: Was the Russian decision to resume testing a breach of an agreement in any respect, or was that simply a matter of countermanding a unilateral decision?

Dr Teller: I believe it was the latter. But I also think there was a considerable deception involved, because . . . according to statements on which we all agree, the Russians have actively prepared for this abrogation while continuing to give us the

impression that they are working with us,  
toward a [comprehensive test ban] treaty.<sup>84</sup>

While it is clear that both Senator Long and Dr. Teller were skeptical about the Treaty under consideration, that Treaty was ratified by the Senate with full knowledge of the problems implied by this exchange. Since the Soviet resumption of testing had violated no formal agreements, it was "acceptable," but since the difference between suspecting and detecting violations was "very significant," such dilemmas could be expected in the future as well. The categorization problem between a "breach" and the simple "countermanding" of agreements would persist, and Senators would continually ask witnesses to ascertain such distinctions.

Teller, of course, was no newcomer in 1963 to the ranks of the skeptics on the compliance question. Three years earlier, he had anticipated the problem even more clearly:

A moratorium on testing is likely to delay the development of nuclear weapons by some nations. These are the nations which are law abiding, in which the individual citizen has most rights, and in which the government is both unwilling and powerless to pursue

---

<sup>84</sup>U.S. Congress, Senate, Committee on Foreign Relations, Nuclear Test Ban Treaty, Hearings, 88th Congress, 1st session, 1963, p. 467.

secretly a development which the family of nations has outlawed. On the other hand, dictatorships may find it relatively easy to produce nuclear explosives. They may find it unnecessary to perform a test prior to usage or else they may be able to carry out their tests in secrecy. The results will be more power in the hands of dictators throughout the world. Establishing laws which cannot or will not be enforced favors the lawless element. A test ban may demonstrate the truth of this statement on a world-wide scale.<sup>85</sup>

Nor was Teller's criticism of fellow scientists limited to the techniques of enforcement. Regarding Richardson's "action-reaction" worldview, for example, Teller pointed out in 1960 the political problems too:

Historically, it would appear that the relation between arms control and peace is dubious. Most people believe World War I [Richardson's data base] was brought about by an arms race. There is good evidence to support this view. On the other hand, there can be little doubt that World War II was caused by an uncontrolled race for disarmament. The peace-loving nations disarmed; and thereby gave one lawless government a chance to bid for world domination.<sup>86</sup>

Thus, for Teller the security risks associated with self restraint were too great to justify a compliance policy that openly tolerated uncertainty. The open society, virtually incapable of noncompliance on a

---

<sup>85</sup>Edward Teller, "The Feasibility of Arms Control and the Principle of Openness," in Brennan, ed., Arms Control, Disarmament, and National Security, p. 124.

<sup>86</sup>Ibid., p. 122.

clandestine basis, would constrain its own behavior while the closed society must be assumed to be following its own interests whether that involved compliance or not.

Similarly, in the first of what would become a prolific and highly provocative series on the subject, Amrom Katz' 1961 "Hiders and Finders" began discussing the profound shortcomings associated with aerial reconnaissance.<sup>87</sup> Wartime use of this monitoring method, observed Katz, although far distant from 1961's methods, made it the technique with which the U.S. had had the most experience and about which (even in 1961) the most was known. From this simple observation emanated a skepticism that would dominate Katz' writings for the following two decades:

Given the premises -- that any general arms control agreement will involve inspection, that the most prominent and well understood inspection technique is aerial reconnaissance, and that even for this technique we cannot answer questions about proposed applications with confidence --- then

---

<sup>87</sup>Amrom Katz, "Hiders and Finders," Bulletin of the Atomic Scientists, xvii (December, 1961), p. 1. Katz' May, 1959 Observation Satellites: Problems, Possibilities and Prospects, (Santa Monica: The Rand Corporation, 1959) certainly predates "Hiders and Finders" but is more technically oriented and will be discussed in the following chapter.

it is clear that we have a great deal of work to do. What is true about aerial reconnaissance is true about the other techniques about which we know much less.<sup>88</sup>

Katz associated this set of premises with what his own informal research had shown to be an a priori principle: that "hiding is easier than finding."

I invariably ask [audiences] whether one would rather be a hider or finder. It usually appears quite obvious to those who have given these matters thought that hiding missiles, or bombs, or warheads, to take a class of interesting examples, permits one more options than finding them, and people seem to want to play a winning game.<sup>89</sup>

In this early and relatively brief essay on the subject, Katz proposed what would become a recurrent theme in his work over the ensuing years. Setting aside a large section of acreage somewhere in the U.S ("say, a quarter million square miles") for large scale maneuvers, suggested Katz, "we [should] deploy two teams, A and B, whose aims would be opposite." Team A would have the job of building a clandestine missile site; Team B's job would be to find it. Katz goes on, of course, to spell out the rules of the game as well as its advantages. Primarily, Katz considered it urgent that the U.S. find out what it could and could

---

<sup>88</sup>Katz, "Hiders and Finders."

<sup>89</sup>Ibid.

not do so as not to oversell its technical inspection skills. After all, Katz asserted,

We do not need a system which works well against a careless, uniformed, unimaginative opponent, but one which works well against an opponent who is smart, careful and imaginative. The large scale utilization of hiders and finders has value independent of any inspection agreement.<sup>90</sup>

In other words, said Katz, in one of his many quotable witicisms, what the U.S. needs is systems that are "not fool-proof but smart-proof."

Along the same lines, Charles Burton Marshall's 1962 "Hide and Seek" categorized security treaties as political bargains in which each side owes its citizenry the assurance that basic values are not being jeopardized.<sup>91</sup> But with regard to modern security negotiations between the U.S. and U.S.S.R. this was somewhat difficult, because if they are realistic both sides attribute to the other those desires most incompatible with their own. Furthermore, said Marshall, this reciprocal anxiety should be nothing to puzzle about:

---

<sup>90</sup>Ibid.

<sup>91</sup>Charles Burton Marshall, "Hide and Seek, Some Dour Thoughts on Inspection," The New Republic, November 24, 1962, pp. 14-17.

Authentic spokesmen for the U.S.S.R. articulate international goals entirely incompatible with the U.S. order of values. Spokesmen on our side articulate goals which could be realized only after a frustration of the U.S.S.R. amounting to historic defeat. That the articulated goals of both parties lie beyond reach is beside the point. Each side makes plain enough what preferences it would establish as purposes of policy if it could.<sup>92</sup>

Taking aim directly at theorists who were blind to the purely political character of the bilateral relationship, Marshall observed a "mode of thought" underlying the American approach to arms control which "rests on ideas of natural law," and in which "principles somehow transcend interests."

In order for an inspectorate to fulfill the promises of these theorists, it would have to be "above interests" and "impartial in endeavor." Its authority, according to this view, would have to be "acknowledged, permitted scope, facilitated in operations, [and] submitted to without cavil or hindrance." This hypothetical inspectorate would have nothing less than the power to bind conscience.

Its existence and functions, thus serving as both a substantive and symbolic substitute for trust between the great adversaries, would gradually evolve a basis for confidence. It would serve to assemble and

---

<sup>92</sup>Ibid., p. 15.

to verify facts to bolster assurance or confirm doubt.<sup>93</sup>

Such impartiality in the hands of a mutually recognized process of arbitration was clearly a fantasy to Marshall, because the U.S.S.R. asserts "a total claim on the future, based on its dialectic concepts of history." Legitimacy in the Soviet view rests not in the impartiality of an inspectorate, said Marshall, but is derived from the "law of history." Those in whom Communist Party authority is entrusted are therefore constrained not to concede legitimacy in anything beyond their direct control.

Marshall was thus troubled by lingering American hopes that the Soviet Union really did not mean it, and that Soviet obduracy could be overcome by negotiated arrangements that adjust details.

The U.S. may indeed exaggerate the efficacy of inspection. In this connection, the notion that inspection has potential for guiding the U.S.S.R. toward becoming an open society may be laid aside as inherently too marginal and speculative for serious consideration.<sup>94</sup>

In short, questions having to do with confidence and reliability could never be reduced to the "merely technical," said Marshall. This may have been possible

---

<sup>93</sup>Ibid.

<sup>94</sup>Ibid., pp. 15-16.

if the bilateral relationship had taken a different course, he acknowledged, -- one in which armaments were "tethered without all the paraphernalia of inspection." But this hypothetical fantasy was as implausible to Marshall in 1962 as it is to others today with the advantages of hindsight.

Following similar themes a year later, Harvey Averch, whose thinking along these lines was discussed in Chapter Two's examination of the closed society, noted that arms control is often thought of as a mechanism for "converging" the two sides toward mutually agreeable strategic postures.<sup>95</sup> While such convergence may be a worthwhile ultimate objective, noted Averch, it is highly implausible when initial strategic postures are asymmetric, when there are lags in the flow of information, or when initial military postures are at variance with desired postures. The question goes beyond the issues of broken agreements or marginal cheating, explained Averch. An equally important question was

---

<sup>95</sup>Harvey Averch, Strategic Ambiguity, Asymmetry and Arms Control: Some Basic Considerations (Santa Monica: Rand Document RM-3426-PR, March 1963).

...whether an agreement provides incentives for exploiting advantages not perceived or not used by the Soviet Union, and dulls American suspicions while the Soviet Union attempts to achieve strategic superiority at some future time.<sup>96</sup>

Such downstream possibilities were considered beyond the enforcement capabilities of even the most well conceived inspection regime, because they involved the many imponderables associated with a fundamental political divergence.

Perhaps the most prolific of those who were skeptical about transition era theories of verifiability was Fred Charles Ikle. Ikle's 1960 The Violation of Arms Control Agreements: Deterrence vs Detection,<sup>97</sup> his 1961 "After Detection - What?"<sup>98</sup> and his 1962 Alternative Approaches to International Organization of Disarmament,<sup>99</sup> were insightful assaults on conventional answers and forerunners to much modern

---

<sup>96</sup>Ibid., p. 2. But see also Paul Y. Hammond, "Some Difficulties of Self Enforcing Arms Agreements," Journal of Conflict Resolution, VI (June 1962), pp. 103-106.

<sup>97</sup>Fred Charles Ikle, The Violation of Arms Control Agreements: Deterrence or Detection, (Santa Monica: Rand Corporation Document RM-2609-ARPA, August 1, 1960).

<sup>98</sup>Fred Charles Ikle, "After Detection -- What?" Foreign Affairs, 39 (January, 1961).

<sup>99</sup>Fred C. Ikle, Alternative Approaches to the International Organization of Disarmament, (Santa Monica: Rand Corporation Document R-391-ARPA, February, 1962).

thinking on the subject. "The impotence of world public opinion," observed Ikle, "stems largely from its short memory." Treaty violators can thus pursue many stratagems to mitigate the reaction of public opinion, and will not be "deterred" if they think they can "discourage, circumvent, or absorb" hypothetical penalties. The fact of violation usually rests on evidence that is equivocal, easily challenged, or hard for the public to understand, noted Ikle in 1960. Violators can frustrate an inspection system from reaching official findings, blame the other side for having violated the agreement as well (creating public confusion whether true or not), accuse the other side of fabricating evidence, or assert an agreement's obsolescence on military or political grounds. Furthermore, the offended government may have to conceal its information sources; or the domestic population may actually prevent an effective sanction as was the case with England's refusal to respond to Hitler's Versailles rearmament violations.

Domestic populations are also wary about accusing their adversaries of violations because of the assumption that to do so would "set into motion an arms race from which there may never be an end" -- a presumed disaster for the guilty nation as well as the

innocent.<sup>100</sup> If the injured nation is in a weaker position militarily, as a result perhaps of having complied with previous agreements, it might seem safer simply to write-off the violation as a loss. For these and other reasons, a potential violator may enter agreements solely for the benefits it would achieve by violating them. Detecting violations is therefore not enough, explained Ikle, because what counts are the political and military consequences of such detections; it is these alone that determine whether a violator stands to lose or gain in the final analysis. Ikle proposed political measures in future agreements that would make sanctions more threatening to a would be violator. He suggested "enabling legislation," to facilitate appropriate presidential reactions, "parliamentary arrangements" to publicize evasions, and allied contingency plans for dealing with clear violations when action is warranted.

The skeptics' critique during bridge theories' era of transition was a political response to a technical argument. Wiesner and Falk had advanced the proposition that Soviet treaty circumventions would be

---

<sup>100</sup>Ikle, The Violation of Arms Control Agreements: Deterrence or Detection, p. 13. Ikle cites congressional testimony as one source of this widespread assumption.

irrelevant, unlikely, and reasonably detectable. To the skeptics, however, these were not the questions. To the scientists and lawyers the problem was the societal and governmental closure of the U.S.S.R.; but to the skeptics that closure was merely a symptom of intense political competition between diametrically opposed visions of a future world. According to technical-legal theories, political competition could be ameliorated by carefully negotiated treaty provisions that bridged the information gap and constrained arms competition. To the skeptics, however, Russian secrecy was just a tool serving the Soviet struggle for political control. Neither piecemeal bridge mechanisms nor regulated security provisions could control Soviet preparations for conflict in the skeptics' view; the only "solution" was direct participation in the struggle for control -- the essence of politics.

Counterarguments, however, would have little impact on the predominant logic as advanced by bridge theorists, because the skeptics were speaking a different language -- talking past the technical-legal vocabulary from whence those theories emanated. So pervasive were the "new models," as they were called by Oppenheimer and Barnet, that an entire logic system

replete with its own grammar had become enmeshed with them. Traditional political perspectives -- bound up in the language and grammar of political realism -- had long since been relegated to the status of "old models." Traditional perspectives held that the relationship between politics and military power remained intact -- uninterrupted by the new technologies characterizing either. According to these "old models," American insecurity was more than an axiomatic, nonnegotiable goal of Soviet ideology and strategy; it was the CPSU's purpose for existence. Skeptics of the new perspectives, however, had in effect lost their capacity to be heard and taken seriously. Thereafter, traditional politics, diplomacy, and strategy would be replaced by new perspectives, new grammars, and new bridges to national security.

## CHAPTER VI

### THE SALT ERA: THE VICTORY OF THE TRUST ADVOCATES AND THE RISE OF NATIONAL TECHNICAL MEANS

On October 11, 1960, some five months after a Soviet rocket had so abruptly terminated Francis Gary Powers' U-2 reconnaissance mission over Sverdlovsk, an article entitled "Spy Satellite to Test Sovereignty in Space" appeared in The New York Times. It was obviously a sign of the times that the headline writers chose to stress legal questions associated with the new satellite's orbital emplacement rather than the watershed in the superpowers' political relationship that space reconnaissance would come to represent. With a straight-forward specificity that could only be fully appreciated in retrospect, The Times got right to the point:

The right of one nation to use space to spy on the territory of another will shortly be put to a significant and perhaps precedent-setting test. In the near future -- this week, it is hoped -- the Air Force plans to launch the first experimental version of its Samos reconnaissance satellite. The first Samos satellite will not be able to take detailed pictures of the terrain and bases of a potential adversary,

as will the future Samos system. The initial launching, however, will bring to a practical test many unresolved legal questions of the new space age.<sup>1</sup>

The carefully leaked information on which this article was clearly based not only spelled out the legal precedents upon which space-based espionage could be called legitimate, but also articulated the minimal criteria according to which Soviet concurrence with that principle would be assumed:

According to the United States position, the lack of objections establishes, in effect, a common law in space giving any nation the right -- short of international agreement to the contrary -- to orbit satellites over the territory of another nation.<sup>2</sup>

Subsequent State and Defense Department silence regarding the new basing technology for aerial reconnaissance was evidently intended to spare the Soviets from public embarrassment while Khrushchev's outrage over the U-2 "intrusion" continued to hold center stage at the UN. Thus, some two decades later, President Carter could expect a groundswell of public confidence in SALT II's "verifiability" when he publicly "revealed" the presence of space based monitoring technology. On the basis of this

---

<sup>1</sup>"Spy Satellite to Test Sovereignty in Space," New York Times, October 11, 1960, p. 1.

<sup>2</sup>Ibid., p. 12.

technological capability, Carter would assert "there is no doubt in my mind that [SALT II] can be ... adequately verified."<sup>3</sup>

Carter would make this assertion despite a plethora of evidence to the contrary. A 177 page Senate Intelligence Committee Report stamped "secret codeword," for example, would reportedly conclude just months later that:

If a covert deployment were attempted, the Soviets could evade detection and identification of the activity for as long as three years, during which some 200 missiles might become operational.<sup>4</sup>

and that:

The Soviets could test a new [SALT II prohibited] ICBM system with a launch weight as much as 20 to 40 percent above the SS-19 with less than a 50 percent chance of detection.<sup>5</sup>

Furthermore Senator John Glenn, a member of the President's own party, an ardent supporter of the SALT process, and one of few senators who had read and understood the report reflected on the matter as follows:

---

<sup>3</sup>The widely quoted and often repeated remark is cited, for example, in John M. Goshko, "Carter: SALT Can be Adequately Verified," Washington Post, May 1, 1979, p. A1.

<sup>4</sup>As cited by Rowland Evans and Robert Novak, "Verifying the Verification Report," Washington Post, October 17, 1979, p. A3.

<sup>5</sup>Ibid.

Nothing I have read or heard so far takes care of the verification problem, but I cannot even say why because of the high classification that has been hung on this whole matter. What we have is euphoria on the basis of official statements.<sup>6</sup>

Additionally, the Soviets would dauntlessly demonstrate their evolving capabilities to circumvent and deceive American technical monitoring devices throughout SALT II's negotiation and ratification processes. In December, 1978, for example, the Soviets encrypted telemetry data during an SS-18 test at the very time that Secretary of State Cyrus Vance was discussing SALT II with Soviet Foreign Minister Andrei Gromyko. Although SALT I had prohibited interference with either side's "means of verification," this encryption was simply the latest in a series of such circumventions (other cases occurred on July 29 and Dec 21, 1978) that had called into question the political efficacy of the agreement itself. Despite American expressions of objection at the Standing Consultative Commission (established by SALT I to take up such issues), the Soviets also tested a "tape bucket" device four months later. This capability (through which telemetry information could be recorded rather than transmitted electronically, then jettisoned by

---

<sup>6</sup>Ibid.

parachute for recovery) would clearly, if used, render Treaty compliance monitoring impossible.<sup>7</sup>

Similarly, Soviet resistance forced the U.S. to abandon a plan that would have employed U-2's over Turkish airspace to compensate for the loss of crucial ground monitoring stations in Iran. Looking elsewhere to ameliorate both the Iranian losses (brought about by the Shah's overthrow) and the denial of Turkish support (brought about by Soviet pressure on Prime Minister Bulent Ecevit) the Administration then publicly unfrocked its monitoring station in Norway -- thereby further compromised its limited covert monitoring capability.<sup>8</sup> By the time Secretary of Defense Harold Brown testified on behalf of SALT II before the Senate Foreign Relations Committee, all he could say about American monitoring capability was that:

Any cheating serious enough to affect the military balance would be detectable in sufficient time to take whatever action the situation required.<sup>9</sup>

---

<sup>7</sup>Clarence A. Robinson, Jr., "Soviets Push Telemetry Bypass," Aviation Week and Space Technology, April 16, 1979, p. 153. See also Robert G. Kaiser, "Despite Earlier American Complaints, Soviets Encoded Missile Test Signals," Washington Post, May 30, 1979, p. A14.

<sup>8</sup>"U.S. Drops Turkish U-2 Plan," Baltimore Sun, September 13, 1979, p. 1.

<sup>9</sup>Ibid.

Brown conceded of course that "no one can pretend that our intelligence collection capability is perfect," but agreed with the President that SALT II was "adequately verifiable."

Our impressive monitoring capability doesn't mean that we can be certain of detecting every conceivable change in Soviet strategic forces as soon as it occurs. [But] to go undetected, any Soviet cheating would have to be on so small a scale that it wouldn't be militarily significant.<sup>10</sup>

In what would become a central feature of the Administration's defense of SALT II, Secretary Brown also articulated his conviction that "all of the uncertainties we face in SALT II would be far worse without an agreement because Soviet concealment practices would then be unconstrained."<sup>11</sup> The statement revealed just how far the U.S. had come in the three decades since Truman had insisted on "foolproof" assurance of Soviet compliance with arms agreements. Instead of monitoring provisions being so thorough as to permit the negotiated relaxation of American defenses, treaties would now be defended on the basis of how well they allegedly aided monitoring activities. Indeed with regard to the five percent

---

<sup>10</sup>Ibid.

<sup>11</sup>Ibid.

limitation on the growth of new missiles' launch and payload weights, permitted by SALT II, and American ability to certify Soviet adherence to these standards, Brown allowed as how "I don't think it matters whether it's 5% or 10%. It doesn't affect our security."<sup>12</sup> Yet, with regard to American responses to related infractions, said Brown, "It depends on how serious a violation and how clear."<sup>13</sup>

The achievement of "legal" constraints on Soviet interference with American means of technical espionage had become an end in itself. National Technical Means of Verification (NTM) had, according to Carter, enabled arms control; but arms control, according to Carter's Defense Secretary, had enabled NTM's efficacy. Logically, the two processes could "enable" one another into infinite regress; but beyond this tautology lay the underlying conviction that nonmeasurable uncertainties as to Soviet compliance were entirely acceptable. Even major infractions were deemed tolerable so long as no single one of them was perceived to have altered dramatically the strategic balance. For Brown, therefore, to accept the uncertainty (or even the reality) of a Soviet violation

---

<sup>12</sup>Ibid.

<sup>13</sup>Ibid.

was a not inconsiderable price to pay for the quasi-legal dignity it would purchase for NTM. Despite a Soviet attitude toward U-2 overflights that was unchanged since 1955 -- a testimony to the durability of both the aircraft itself and of the Soviets' determination to preserve their privacy -- and despite an eager new Soviet ability to destroy low orbiting spacecraft, the question posed by The Times in 1960 had been answered to the satisfaction of the Carter Administration. This answer, conveyed initially by Soviet silence and thereafter by ambiguously worded treaty provisions, was now by itself offered as justification for the new Treaty's ratification.

This chapter examines the continued evolution of technical-legal bridge theories and their official implementation during the SALT years. The logic according to which compliance uncertainties were accepted and institutionalized began with the impressive technical growth of optical, infrared electronic espionage devices -- especially those that could be based above the flight paths of manned aircraft. After a brief description of this technology's maturation, specific SALT era agreements will be examined. The discussion will demonstrate the extent to which a legal rationale, following blithely

down the trail blazed by technological claims, was institutionalized first in the form of SALT I and later SALT II. Expectations hinging on assumptions that were a quarter-century in the making were thereby formalized, and technical-legal bridge mechanisms were widely advertised as the enablers of this compromise between the open and closed societies. Part II will close with an examination of these expectations and the assumptions that made them inevitable. It will be argued in this context that even as mechanisms designed to test the validity of these assumptions, the political character of the experiment was misperceived, underestimated and possibly even ignored for the sake of expediency.

#### 1. The Technology

By the time strategic arms control efforts got underway in earnest in 1967, Americans had long since grown accustomed to the idea that technology could change the character of a political problem. The Hiroshima bomb had terminated abruptly a war that would otherwise have gone on for months or years, and had saved countless thousands of American lives in the process. The automobile and the airplane had changed the relationship between man and distance making every part of the planet accessible. Television, telephones,

and data processing had opened new opportunities for human intercourse, economic activity, and self enlightenment. The earth and the skies were opened to exploration as never before, beckoning investigation, broadening the parameters of human imagination, and redefining the limits of political possibility.

Few examples from the history of the technological revolution, however, can compete for the claim to "benchmark" status in international relations with the 1962 Cuban Missile Crisis. No one who is old enough to recall the drama will ever forget the image of the dashing young President seizing control of the moment. Almost as if the event had been staged for his talents, John Kennedy unsheathed the great weapon of his communication skill and dominated the public airwaves -- informing and reassuring his populace, orchestrating and leading his allies, threatening and cajoling his adversary. An insecurity of potentially absolute proportions would come and go under his swift and firm control while a reassured public gaped in amazement. The Presidential Scholar Richard Neustadt would describe the performance as a textbook case of presidential power properly and purposefully exercised.<sup>14</sup>

---

<sup>14</sup>Richard Neustadt, Presidential Power (New York: John Wiley & Sons, 1960), p. 203.

The obvious compatibility between the man and the medium, however, was but a small part of the event's technological significance. The premise of all that was communicated, and the vehicle from whence came the President's sure-handed confidence, had originated in the form of photographs taken by American spy planes. With the cocksuredness of a poker player staring coldly at his well concealed winner, Kennedy would produce the "hard evidence" that "proved" the justice of his position and thereby rule out the slightest suggestion of his overreaction. With a convinced population cohesively behind him, he would boldly assert the crime; and with the power of hemispheric denial at his disposal, he would evenhandedly dole out its punishment. With the additional power that being "right" offers one in such situations, Kennedy could even afford to be magnanimous by limiting his objectives, but the choice was his own. The humiliated enemy, without the luxury of such choices, could only go home and take his missiles with him as the public airwaves were returned to the sitcoms and their sponsors.

The open and shut character commonly attributed to the incident, however, was an appearance that would prove ruthless to a more enduring reality. A relieved

public would close the book on the problem of Russians in Cuba and vest supreme confidence in the capacity of mechanical intelligence devices to render the unequivocal verdict. But the case in point warranted neither conclusion. That conventional wisdom would learn the wrong lessons from the experience may have been predictable in light of its uniquely public airing. But numerous enigmatic aspects of the event would be overlooked; and generalized principles of statecraft would be induced from experiences that would never again recur. Amrom Katz has agreed that the photographic evidence of offensive missiles in Cuba was unequivocal: "It had the characteristics necessary for such evidence: the facts weren't hidden, and the evidence was presentable to the UN, to laymen, to the public."<sup>15</sup> But Katz underscores the less commonly recalled point that even the superb and voluminous photographic evidence in question received, in some quarters, hard and grudging acceptance. Furthermore, footnotes Katz:

the small scale, high altitude photos by which the Soviet activities were first detected were adequate enough for the crack photo interpreter. It took the much larger

---

<sup>15</sup>Amrom Katz, Verification and SALT: The State of the Art and the Art of the State (Washington, D.C.: The Heritage Foundation, 1979), p. 9.

scale, very low altitude photos to really convince the rest of the world.<sup>16</sup>

Agreeing with the proposition that the Cuban photographs were uncommonly persuasive, Harold Rood has asked the second level question of "why?"<sup>17</sup> Rood is puzzled by the uncharacteristically superficial nature of the entire undertaking by the Soviets.

The missiles themselves had been identified in military parades in the Soviet Union so that it was impossible to mistake them for anything but what they were. Here was the Soviet Army, past master of camouflage and deception, unable to hide a handful of missiles . . . . This was the same Soviet Army that, in the offensive to liberate Byelorussia in 1944, was able to conceal 2.5 million troops, 4000 tanks, and 24,000 mortars and artillery pieces from the German troops they were about to attack.<sup>18</sup>

Examining the consequences of the incident -- that the U.S. chose to seek a diplomatic accommodation with the Soviets, and thereby assure the Cubans a degree of external autonomy previously held to be unreasonable -- Rood suggests that such an objective may have motivated the Soviets from the outset. "The strategic fact" today, says Rood, "is that the Soviet Union has been permitted to develop an advanced base in the Gulf of

---

<sup>16</sup>Ibid.

<sup>17</sup>Harold W. Rood, "The Cuban Missile Crisis -- More Military than Political," Chapter V of Rood, Kingdoms of the Blind (Durham: North Carolina Press, 1980), pp 96-133.

<sup>18</sup>Ibid., pp. 97-98.

Mexico ... a remarkable departure from the policies implied by the Monroe Doctrine.<sup>19</sup>

If Professor Rood were not so often correct in his analyses, it would be difficult to yield such vision to the 1962 Soviet leadership. But if his secondary and tertiary level insights have any validity whatsoever, then it is equally plausible that the Soviets wished to encourage the investment of otherwise unimagined levels of confidence by Americans in their normally less convincing intelligence product. As with Rood's argument, the consequences of the incident have certainly included exactly that outcome -- the institutionalization of a means of settlement on the basis of a single factor success. And as will be demonstrated in Part III of this project, the vastly asymmetric beneficiary of that commitment has been the U.S.S.R. Whether it was an implementation of long range Soviet strategy or just dumb luck, however, the toleration of a new military relationship between the Soviets and Cubans was just one of the American policy changes seduced by the incident, and perhaps not even the most far reaching one. Technical means of intelligence had acquired the status of overseer and enforcer in American security policy, and arms control

---

<sup>19</sup>Ibid., pp. 126-127.

enthusiasts had their long sought validator of bridge theories' efficacy.

It is not at all surprising that aircraft based reconnaissance acquitted itself so favorably during the Cuban incident. The gliderlike U-2 was equipped with both sensitive photographic equipment and a "ferret" receiver to record radio and radar emissions.<sup>20</sup> The aircraft downed by the Soviet Union some two years earlier had been found by Russian engineers to be carrying a 73-B camera with a 36 inch focal length and a rotating lens for consecutive ground surveillance through seven glass enclosed windows in the fuselage of the U-2. At the vertical, scale for such imagery would approximate 1:22,000.<sup>21</sup> President Eisenhower would later recall that this resolution enabled the identification of automobiles on streets and the lines that marked parking areas for cars -- from 70,000 feet over U.S. cities.<sup>22</sup> Confident that such technology at their disposal could secure the borders against the

---

<sup>20</sup>U.S.S.R., Military Division of the Supreme Court, The Trial of the U-2, Intro. by Harold J. Berman (Chicago: Translation World Publishers, 1960), p. 3.

<sup>21</sup>Ervin J. Rokke, "The Politics of Aerial Reconnaissance," (unpublished PhD dissertation, Harvard University, 1970), p. 77.

<sup>22</sup>Dwight D. Eisenhower, Waging Peace (Garden City, New York: Doubleday and Company, 1965), p. 545.

horrors of a nuclear age Pearl Harbor -- especially after it had "proved itself" in 1962 -- American scientists began expanding on the technology of U-2's and SAMOS satellites in truly phenomenal proportions.

Spaced-based reconnaissance was not a new concept when the 1960 SAMOS (for Satellite and Missile Observation System) launch was reported. There is even some question as to the historical accuracy of what the New York Times was reporting in the October 1960 article cited. Ted Greenwood has reported, for example, that techniques for the direct recovery of a satellite's film package were tested with a "Discoverer 13" reentry capsule on August 11, 1960. Either this package or the one recovered from Discoverer 14 the following week evidently yielded the first satellite photos of the Soviet Union. The first successful radio transmission satellite, SAMOS II, was placed in a 300-350 mile polar orbit on January 31, 1961 carrying 300-400 pounds of instruments. According to Greenwood, it was the initial success of those spacecraft that finally clarified the missile gap issue. By September, 1961, as a result of additional Discoverer capsule recoveries and more time to analyze SAMOS II data,

Russian ICBM deployments were put at 14.<sup>23</sup>

The established pattern would continue using "area surveillance" satellites to provide low resolution/rapid recovery through radio transmission, and high resolution/slower recovery from de-orbited film capsules. The progeny of Discoverer -- recoverable capsule satellites -- were called "close-look" spacecraft whose lower orbits (typical perigees of 80 miles) and heavier instrumentation packages necessitated more frequent launchings. Greenwood estimates 1963 as the date of close-look systems' full operational status with three to five day orbits and monthly launches.<sup>24</sup> Discoverer's data package was returned to earth in a reentry capsule for mid-air recovery by specially equipped aircraft or, when necessary, by Navy frogmen.

The comparatively small radio transmission satellites that have descended from the early SAMOS concept have opted for sensors and orbital characteristics that maximize the area of coverage. Their "search and find" mission, from which clues were

---

<sup>23</sup>Ted Greenwood, "Reconnaissance and Arms Control," Scientific American, 228 (February, 1973), pp. 17-18. See also Philip J. Klass, Secret Sentries in Space (New York: Random House, 1971).

<sup>24</sup>Ibid. p. 18.

derived to generate close-look follow on launches, was conducted from no lower than 100 miles, and their lighter instrumentation enabled orbits of three or four weeks. Second generation search and find satellites, beginning in May 1963, added thrust augmentation capability to the launch vehicle and thus lengthened mission durations to about a month. Greenwood speculates (from analysis of the launch schedules) that problems of reliability necessitated both more frequent launches and the routine emplacement of two or more satellites on orbit at the same time. Since 1966 appears to be the time when such overlapping was discontinued, he estimates that year as the date of area surveillance satellites' full operational capability. The use of still more powerful launch vehicles in May 1967 marked the arrival of third generation spacecraft which Greenwood describes to have featured longer focal length cameras, a larger film supply, an infrared optical camera, and a new transmission system with a faster data rate.<sup>25</sup>

The capabilities of both "search and find" and "close look" photoreconnaissance improved regularly over the ensuing years. In 1971, the prototype of a fourth generation system called Big Bird combined the

---

<sup>25</sup>Ibid., p. 19.

two missions in an eleven ton spacecraft with ground resolutions of one foot from 100 miles -- then considered the theoretical limit of atmospheric optical penetration.<sup>26</sup> Using both capsule recovery techniques and data transmission methods, Big Bird added on-board film processing and scanning ability. Furthermore its unfurlable 20 foot (diameter) antenna increased data transmission speed by a factor of 16 over that of earlier five foot antennae.<sup>27</sup> The combination of these two features enabled the transmission of developed television pictures by way of synchronous communication satellites from which the signal could be "bounced" to operators in the U.S. This near real-time reconnaissance information could then be used to redirect the satellite to obtain closer look observations of interesting targets. More detailed

---

<sup>26</sup>E. Asa Bates, "National Technical Means of Verification," RUSI Journal, May, 1978, pp. 64-65.

<sup>27</sup>Philip J. Klass, "Recon Satellite Assumes Dual Role," Aviation Week and Space Technology, August 30, 1971, p. 13. According to Klass the number of photos that can be taken on a single "pass" can be increased by enlarging the antenna. The number of photos would be increased by the square (second power) of the antenna diameter. See also Ted Greenwood, Reconnaissance, Surveillance, and Arms Control (London International Institute for Strategic Studies, Adelphi Paper #88, June, 1972), p. 12. According to Greenwood too, the transmission rate is determined by the square of the antenna diameter. Thus the 20 foot antennas had 16 times the capacity of its five foot predecessors.

pictures could also be dropped in reentry capsules.<sup>28</sup>

In addition to its regular photographic capability, however, the remarkable new satellite was also equipped with infrared sensors that had sufficient resolution to detect some heat variations within buildings, a multispectral imaging capacity that could reduce the effectiveness of camouflage and "fake backgrounds," and side-looking radar sensors that could reduce the problems of darkness and clouds.<sup>29</sup> Combining all of these missions into a single system also required new means for extending the spacecraft's lifetime. Therefore on-board rockets were added to prevent early burnouts. The first three missions of the prototype craft lasted 52, 40, and 68 days respectively,<sup>30</sup> but by the time of its maturation, missions of over 200 days had become commonplace with replacement launches reduced to twice annually.<sup>31</sup>

The possibility that the technical achievements of Big Bird could soon be exceeded by a fifth generation

---

<sup>28</sup>Klass, "Recon Satellite Assumes Dual Role," p. 13.

<sup>29</sup>Bates, p. 65.

<sup>30</sup>Greenwood, "Reconnaissance and Arms Control," p. 20.

<sup>31</sup>Russell Spurr, "Enter the Super Spooks," Far Eastern Economic Review, 95 (February 25, 1977), p. 2.

photoreconnaissance satellite seemed inconceivable in 1971. The rapid progress up until then had been truly astounding by any measure. As early as 1966 there were reports that SAMOS could pick out a telephone wire -- because of its length -- from 100 miles.<sup>32</sup> By 1967, a report offered the analogy that "objects as small as three feet in diameter, such as garbage can lids, probably are picked up on a routine basis."<sup>33</sup> That same year, speaking to a meeting of educators in Tennessee, President Johnson allowed as how "I know how many missiles the enemy has;" he substantiated this claim with the observation that satellite reconnaissance was worth "ten times" what the U.S. had spent in space.<sup>34</sup> Another source reported in 1968 that images the size of a basketball were commonplace, and were "a thousand times better" than first generation SAMOS pictures.<sup>35</sup> Yet when the U.S. launched the KH-11

---

<sup>32</sup>Peter T. White "The Camera Keeps Watch on the World," New York Times Magazine, April 3, 1966.

<sup>33</sup>J.S. Butz, Jr., "Under the Spaceborne Eyes," Air Force and Space Digest, May 1967, pp. 93-98.

<sup>34</sup>Greenwood, "Reconnaissance and Arms Control," p. 20.

<sup>35</sup>"Spies in Space," U.S. News and World Report, September 9, 1968. Information in this paragraph also reported by Jeremy J. Stone, "Can the Communists Deceive Us?" in Abram Chayes and Jerome B. Wiesner, eds., ABM (New York: Harper and Row, 1970), pp. 194-195.

AD-A135 439

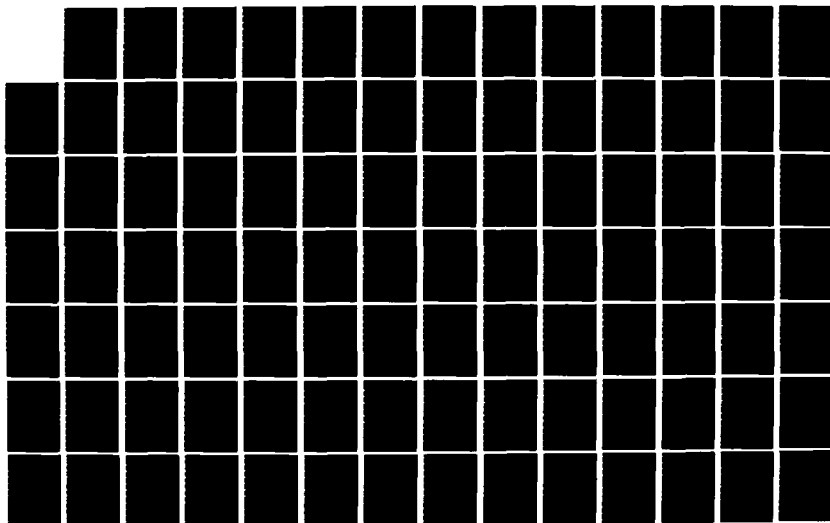
ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

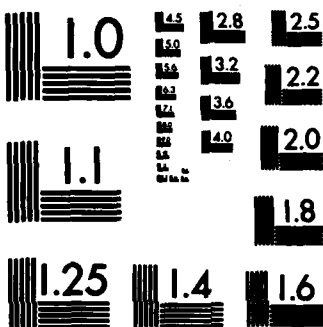
4/6

UNCLASSIFIED

F/G 5/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

in 1977, improvements in folded optics and real-time transmission capability, as well as in the quality of the film package, were producing resolutions on the order of perhaps 3 or 4 inches from 99.5 miles.<sup>36</sup> Objects the size of a tennis ball could be identified, and cars on the street could be distinguished not only from trucks but from one another as well -- by their license numbers.<sup>37</sup>

According to Blair and Brewer, the KH-11 is thought to possess a special multispectral scanner, which uses separate lenses to shoot several pictures simultaneously. By assigning a different color to each spectral region and by using different lenses for the visible-light and photographic infrared bands, photo interpreters can generate a highly detailed "mosaic" picture. This "false color" technique is said to reveal many otherwise camouflaged objects.<sup>38</sup> Working in conjunction with defense meteorological satellites,

---

<sup>36</sup>Bruce G. Blair and Gary D. Brewer, "Verifying SALT Agreements," in William C. Potter, ed., Verification and SALT, (Boulder: Westview Press, 1980), p. 19.

<sup>37</sup>Hubert Feigl, "Satellitenaufklärung als Mittel der Rüstungskontrolle," Europa Archiv, 34 (September 25, 1979), pp. 555-570.

<sup>38</sup>Blair and Brewer, "Verifying SALT Agreements," p. 25.

the KH-11 can be activated as desired to exploit cloud-free conditions, but its imaging radar capability can penetrate darkness and water vapor under many conditions that are not so favorable. This latest of the reported capabilities in technical reconnaissance is clear testimony to the physical problems that can be overcome by devoted investment in the search for technical solutions.

Yet satellites that take "pictures" have been only the beginning of the explosion in monitoring technology, and space itself is but one of several environments in which such monitoring skills have so dramatically evolved. After numerous frustrations with the Missile Defense and Alarm System (MIDAS) in the early 1960s, for example, infrared early warning detection systems have grown steadily. Once the unique "signature" characteristics of Soviet missile exhaust plumes were catalogued -- beginning in 1962 -- Project 461 (1962), the Satellite Early Warning System (1963), and Project 647 (1970) began using increasingly sophisticated sensor technology to detect and identify missiles as they rose above the atmospheric envelope.<sup>39</sup> Today's versions of this technology are

---

<sup>39</sup>Greenwood, "Reconnaissance, Surveillance, and Arms Control," pp. 18-19.

said to produce real-time detection of missile tests with vastly improved infrared sensors (from space, ground, and shipboard), on board processing, and the automatic transmission of television pictures.<sup>40</sup>

Similarly, "ferret" satellites, which have evolved from SAMOS and Discoverer era efforts to modern Rhyolite and Argus technology, eavesdrop on radio communications and intercept other electronic emissions.<sup>41</sup> According to Klass, these electronic intelligence (ELINT) systems have grown according to the same pattern as the observation satellites: using small, less sensitive systems for area surveillance, and large, very sensitive spacecraft for "close-look" follow up purposes. "Piggy-back" techniques have in fact been utilized routinely to deploy the photographic and ferret missions with the same launch vehicle. After substantial growth through the 1960s, modern ferret capability from space is said to intercept telemetry after missiles leave the atmosphere and, less reliably, during the boost phase as well. Blair and Brewer have suggested that, in combination with U-2 surveillance, Rhyolite could even compensate

---

<sup>40</sup>Ibid., p. 24, and Blair and Brewer, p. 33.

<sup>41</sup>Bates, p. 66.

"adequately" for the loss of the ground tracking stations in Iran.<sup>42</sup> New third generation spacecraft are said to carry an inventory of all known Soviet radars, their locations, and other signal characteristics in an electronic computer. Unfamiliar ABM or air defense radar signals thereby trigger closer analysis and subsequent examination by photography and other methods.<sup>43</sup> It has even been reported that ferret spacecraft have intercepted messages to the Soviet submarine fleet and occasionally even private conversations.<sup>44</sup>

Although the impressive technological growth in NTM is most commonly associated with these space-based systems, some of the most useful of the new technical intelligence methods have always relied upon ground and shipboard basing as well. Reconnaissance satellites, with their finite periods of local observation, are hardly suitable by themselves for the inspection of missile tests. Geostationary spacecraft may assist in identifying missile types, and may even be able to count the number of directional changes accomplished

---

<sup>42</sup>Blair and Brewer, p. 33.

<sup>43</sup>Philip J. Klass, Secret Sentries in Space (New York: Random House, 1971), p. 195.

<sup>44</sup>Bates, p. 68.

by a MIRV carrying bus -- and thus draw inferences as to how many reentry vehicles are carried in a given test -- but more detailed telemetry data can only be obtained from stationary basing methods in the region of the test. Ground-based radar and other sensors, which can constantly probe the operational status of testing apparatus at any given moment, enable more accurate measurement of such parameters as launch weights, payloads, warhead improvements, propulsion performances, and missile ranges.<sup>45</sup>

Accordingly, the U.S. has always striven to deploy such stations both in the regions of the test launches -- Plesetsk, Kapustin Yar, and Tyuratam for missiles; Sary Shagan for ABMs<sup>46</sup> -- as well as in the terminal reentry areas of missile tests -- primarily the Kamchatka Peninsula and the North Pacific regions.<sup>47</sup> According to Greenwood, the first of these ground installations used line of sight radar from Sansun, Turkey in 1955. Working in conjunction with U-2's, this system's 1000 mile range detected IRBMs in 1956, ICBM tests at Kapustin Yar in 1957, and even

---

<sup>45</sup>Feigl, p. 19.

<sup>46</sup>Blair and Brewer, p. 31.

<sup>47</sup>Ibid., p. 33.

anticipated the launch of Sputnik I in November, 1957.<sup>48</sup> Improvements in radar technology preceded the emplacement of a longer range system at Diyarbekir, Turkey in 1963-64 capable of acquiring the newer Soviet test center at Tyuratam east of the Aral sea. By 1962, the U.S. had also begun tracking terminal reentry activities from Shemya, Alaska in the Aleutian Islands, and by 1963 from Johnson Island, Midway Island, Kwajalein Atoll and Bikini Atoll. Furthermore BMEWS radars were operational, although principally for early warning purposes, at Thule, Greenland (1960), Clear, Alaska (1961), and Fylingdales, England (1963). The latter stations, while essential for detection purposes and capable of discovering some trajectories, shapes and sizes, and missile-type information, could not compute such factors as ballistic coefficients, degrees of reentry maneuverability, or the detailed structure of a reentry vehicle.<sup>49</sup>

Still further radar improvements, such as Over-the-Horizon (OTH) technology, eliminated many of the limitations imposed by earth curvature by acquiring

---

<sup>48</sup>Greenwood, "Reconnaissance, Surveillance, and Arms Control," p. 16. Kapustin Yar is located northwest of the Caspian Sea; Greenwood describes here the AN/FPS-17.

<sup>49</sup>Ibid.

reflections off the ionosphere. These greatly increased radar's distances and permitted more immediate missile launch detections. Missile signatures thus came to be identifiable by the unique disturbances each type causes in the ionosphere. Forward and Back-scatter OTH radars have been highly reliable since 1968 when NORAD began using them to detect SLBM launches and depressed orbit (FOBS) ICBM tests from any direction. The more recent development of phased array radar has enabled the tracking of large numbers of objects simultaneously, such as the following of MIRVs nearly to impact. Today's Cobra Dane on Shemya Island, for example, can detect warheads, decoys, and burned out missile stages moving toward Kamchatka and the Northern Pacific. From distances of over 1850 miles it is evidently possible to detect radar images the size of a tennis-ball, and to follow their trajectories down to an altitude of 60 miles. To supplement Cobra Dane, the vessel-based (U.S.S. Observation Island) radar system, Cobra Judy, is designed to perform similar missions from sea;<sup>50</sup> Cobra Judy was reportedly used at the Iranian ground

---

<sup>50</sup>Feigl, p. 21. For more on Cobra Dane, see Philip J. Klass, "USAF Tracking Radar Details Disclosed," Aviation Week and Space Technology, October 25, 1976, pp. 41-46.

stations as well.<sup>51</sup>

While "active" radar performs many such identification functions, however, "passive" listening equipment intercepts telemetry -- the actual radio signals by which the Soviets themselves evaluate many test performance characteristics. But unlike modern radar systems, listening posts are still limited to line-of-sight distances and cannot normally circumvent earth curvature or topographical intrusions. They must therefore be located fairly close to launch facilities in order to acquire crucial boost phase telemetry such as sizes, payloads, and fuel-types.<sup>52</sup> Thus the U.S. is reported to have used stations in Norway to monitor Plesetsk; in Turkey (with political interruptions) to monitor Kapustin Yar; and in Iran to monitor Tyuratam.<sup>53</sup> The Iranian stations, about which a considerable amount of information has reached the unclassified literature, demonstrate both the potential capabilities of such posts and the costly price of their loss.

According to most reports there were two such

---

<sup>51</sup>Blair and Brewer, p. 32.

<sup>52</sup>Ibid., p. 31.

<sup>53</sup>Ibid., p. 32.

ground stations in Iran until the 1979 revolution. Aviation Week and Space Technology, however, has made vague reference to seven such stations; more specifically, Defense/Space Business Daily has discussed three installations:

In addition to Kabkan [the real "ringside" seat of the trio] there were two other major U.S. listening stations near the northern borders of Iran, both of which ceased operations earlier [than Kabkan] and had their equipment destroyed. One of these posts, a radar installation overlooking the southwestern shores of the Caspian Sea in the forests near Klarabad was used to monitor Soviet military activities in the areas near the Black and Caspian Seas. The third site was near the South Caspian Sea coast at Behshahr which apparently also had a capability to monitor some Soviet activities at Baikonur and other activities north and east of the Caspian Sea.<sup>54</sup>

Kabkan, 40 miles east of Meshed, sat at 6500 feet and overlooked the Soviet Karakumy and Kyzylkum deserts stretching 660 miles north-northeast to the Baikonur Cosmodrome. CIA instruments from this vantage could reportedly follow Soviet missiles and rockets virtually from liftoff. The view of vital first and second stages, preliminary preparations, and initial missile or rocket performances, enabled evaluation of several crucial modernization efforts. These are evidently irreplaceable capabilities whether by satellite,

---

<sup>54</sup>Defense/Space Business Daily, 103 (March 5, 1979), p. 16.

airborne surveillance, or even bases in Turkey, which cannot acquire data until flights have cleared the horizon.<sup>55</sup>

From Kabkan and the other Iranian listening posts, the U.S. gathered advance information on imminent missile tests (particularly regarding the liquid fueled SS-18s and 19s), maneuvered reconnaissance satellites so as to photograph these tests, and intercepted telemetry data while the missile was being launched. Kabkan, as the closest to Tyuratam, could receive telemetry data as soon as the missiles reached 60 miles altitude -- in the early takeoff phase when especially revealing information is transmitted. Stations in Turkey, such as Sinop on the Black Sea, cannot receive such telemetry data until missiles reach an altitude of 375 miles. Furthermore, the signals received even at this altitude are far weaker because they must travel an extra 990 miles by comparison with Kabkan.<sup>56</sup> In this regard, the "Tacksman 2" at the northeastern station was evidently the principal telemetry sensor during both boost and midcourse trajectory telemetry

---

<sup>55</sup>Ibid., p. 15.

<sup>56</sup>Feigl, p. 21.

transmissions.<sup>57</sup> The New York Times reported in June, 1981 that a new station jointly operated in the Xinjiang Vighur region of western China is now functioning under joint Chinese-American control -- manned by Chinese technicians with periodic advisory visits from CIA personnel.<sup>58</sup> While considerably closer to Tyuratam than are the Turkish stations, the Chinese facility is evidently more suited to monitor missile testing bases at Leninsk near the Aral Sea and at Sary Shagan. The manning situation described must clearly limit the sophistication of equipment used, and the mountainous Turkestan region would clearly impede radio telemetry far more than would the plains between Meshed, Iran and Tyuratam.

The efforts described concerning Iranian facilities can probably be inferred to approximate ground monitoring efforts elsewhere such as in Turkey and Norway. But no one of these stations should be evaluated by itself as a sole method of monitoring Soviet missile tests. The effectiveness of technical

---

<sup>57</sup>Philip J. Klass, "U.S. Monitoring Capability Impaired," Aviation Week and Space Technology, May 14, 1979, p. 140. See also Richard Burt, "Technology is Essential to Arms Verification" New York Times, August 14, 1979, p. C1.

<sup>58</sup>Philip Taubman, "U.S. and Peking Jointly Monitor Russian Missiles," New York Times, June 18, 1981, p. A1.

espionage is best understood in the context of multiple redundancies in coverage of those activities deemed crucial -- a sort of synergism creating a whole product whose value exceeds the sum of its parts. At least two Rhyolite satellites, for example, are said to rest within range of Tyuratam from geostationary orbits over the Horn of Africa; two others farther to the east can monitor solid propellant launches including the SS-16, SS-17, and SS-20 at Plesetsk. Shipboard sensors provide crucial terminal area platforms that are less vulnerable than land stations to shifting political allegiances. Blair and Brewer find cause for still further optimism in the possibilities of reconnaissance submarines, hidden sensors in adversaries' homelands, civilian satellites, and traditional espionage activities.<sup>59</sup>

Indeed allusions to such "sensitive" intelligence assets may or may not be cause for additional confidence, but the more serious technical gaps have to do with Soviet successes in defeating NTM's purposes time and time again. These shortcomings include the encryption of telemetry in unbreakable codes, the

---

<sup>59</sup>Blair and Brewer, p. 37.

compromises of the KH-11 operating manual<sup>60</sup> and of Rhyolite's precise limitations,<sup>61</sup> and the reluctance of Congress until recently to fund Argus satellites as follow-on enhancements to Rhyolite. Furthermore, despite impressive progress in acquiring portions of the electromagnetic spectrum other than optical light, 60 percent of the earth is normally covered by clouds. As will be discussed in Chapter Seven, for example, analysts began worrying in 1973 that new Soviet constructions along the trans-Siberian railway were new silo-launchers in excess of those to which the U.S.S.R. was constrained by SALT I. Corroboration, however, was delayed for several weeks by cloud cover that virtually impeded overhead reconnaissance. Furthermore, when the clouds finally cleared and the construction of silo-type structures was confirmed, debate shifted to questions of the structures' intended purpose which was completely beyond technical monitoring's main function.

When one examines problems of cloud cover in conjunction with the problems imposed by darkness, smoke, and dust, it becomes clear that there is only

---

<sup>60</sup>James Ott, "Espionage Trial Highlights CIA Problems," Aviation Week and Space Technology, November 27, 1978, pp. 21-23.

<sup>61</sup>Klass, "U.S. Monitoring Capability Impaired," pp. 139-140. See also Robert Lindsey, The Falcon and the Snowman (New York: Simon and Schuster, 1979).

one chance in five of any given point on the earth being visible.<sup>62</sup> The additional problems of seeing inside buildings, reducing for analysis the vast quantities of accumulated data, and discovering the more disconcerting possibilities associated with an adversary's research and development, all complicate the monitoring problem still further. But of particular concern is the extent to which modern arms control provisions compel disproportionate attention from the intelligence community's monitoring assets. These assets, while indeed qualitatively impressive as discussed in this section, are nevertheless quantitatively scarce. As will be discussed in Chapter Eight, there are important distinctions between arms control and verification, on the one hand, and national security and intelligence monitoring on the other. Agreements may or may not constrain those Soviet activities that are of most concern to national security, but the provisions of those agreements demand NTM's continuous attention in either case. Scarce monitoring assets are thereby committed in many cases to activities of minimal concern to national security, while important developments in the Soviet threat are

---

<sup>62</sup>Jeremy J. Stone, "Can the Communists Deceive Us?" in Abram Chayes and Jerome B. Wiesner, eds., ABM (New York: Harper and Row, 1971), pp. 196-197.

often unnoticed or underestimated. In the process of revealing NTM's discoveries -- for negotiational data bases and post agreement compliance questions -- assets needed for monitoring the threat are placed still further at risk.

A cursory review of what have come to be known as "national technical means," -- even when limited by what is readily available from open literature -- must be regarded as impressive from the standpoint of their technological expansion over the years. It is fairly understandable that hopeful expectations and "swords to plowshares" thinking would follow in the wake of such growth; but it is all too easy to overstate the implications of the new technology's penetrative capacity. Satellites must follow rigid, easily predictable laws of planetary motion. Synchronous orbits can provide continuous coverage of a given point on the earth, but only at the expense of resolution, because such orbits are over 22,000 miles in space. Elliptical orbits make the same trade in reverse by providing higher resolutions -- but only periodically. The center of the earth always lies at one of the two focal points of an orbiting body's ellipse, and a satellite's trajectory is virtually fixed once the delivery vehicle establishes its velocity and

direction. Above all, NTM's product is simply a data stream -- one that is laden with as much irrelevant information as useful new knowledge. Truth content reduced from such massive amounts of material is still subject to human judgment with all of the limitations that inhere to individuals' human imperfections, as well as those imposed by the political implications of unwelcome discoveries. The analyst is often merely searching where he "expects to find something," and the product of technical espionage seldom dispels preconceived explanations of an adversary's strategic intentions. In fact, such preconceptions on the part of an analyst would be reinforced by a great variety of possible "observations" and "discoveries." In short, for all its marvel and technological wizardry, NTM simply shift the problems of "cops and robbers," and "hidiers and finders" into more exotic environments.

## 2. The Expectation

Having entered space with rapidly growing remote monitoring capabilities, the U.S. promptly ameliorated several of the limitations that had burdened the performance of similar missions from manned aircraft. Along with increases in the altitude from which reconnaissance could be conducted came the reduction of vulnerability problems resulting from the exposure of

human life to the unpredictable behavior of a hostile adversary. Gone too were the problems of basing and refueling that inhere to the operation of airplanes. Furthermore, reconnaissance mission durations were extended dramatically as was the purview capacity of optical and electronic surveillance. Thus the secrecy of American interest in specific targets under examination could be guarded more easily, so that adversaries' concealment efforts would have to attend to a broader range of activities. The latter benefit would remain a double-edged sword, of course, because, in "hiders and finders" terms, the inspected nation retained the advantage of knowing precisely what needed concealment and could manufacture countless "potential" targets of interest as well. Nevertheless, satellites -- because of their greater longevity aloft -- were more easily adaptable to the discovery of such "changes" as a shift in military personnel from one region to another, an increase in training activities, or the existence of previously absent construction activities.<sup>63</sup>

Already by 1962, skeptics were being admonished

---

<sup>63</sup>Walter J. Levison, "Capabilities and Limitations of Aerial Inspection," in Seymour Melman, ed., Inspection For Disarmament (New York: Columbia University Press, 1958), p. 68.

that skilled photo interpreters, analyzing each feature "in the overall context of a scene," could "extract vastly more information from such photographs than is apparent to the untrained observer."<sup>64</sup> The trained observer, on the other hand, could do wonders with the various combinations of "hard data."

By combining skilled observation with extensive background knowledge about the types of facilities of interest, he can even estimate industrial production capabilities or detect significant changes in weapon system capabilities.<sup>65</sup>

The technical report that heralded such confidence, like the conventional wisdom of the era, found no problem with the age old scientific bugaboo of inherent bias in the relationship between an observer and the observed. On the contrary, "extensive background knowledge" and "knowing what to look for" had created a partnership between the analyst and his "data" that was considered necessarily beneficial.

Subsequent research by Albert Wohlstetter and by the 1976 B Team, both of which will be examined in greater detail in Part III, would be considerably more troubled by that symbiosis. Not so, however, of Jeremy

---

<sup>64</sup>General Electric, General Engineering Laboratory, Schenectady, New York, Report No. 62G-L78 (July 27, 1962), p. 986.

<sup>65</sup>Ibid.

Stone, who boasted in 1970 that "we have, in effect, already created a unilateral arms inspection system," which, used in the context of arms control enforcement, "would cost us scarcely one additional dollar."

Furthermore, said Stone:

It is hard to imagine that Soviet leaders, knowing their country is under such close observation from the sky, would think they could get away with cheating -- by building, for example, large numbers of missiles or submarines, antimissile defenses, and new antisubmarine warfare capabilities. Such an action would risk disclosure to the United States through some other means as well, including defectors, spies, and so on.<sup>66</sup>

Indeed it seemed that no one who described the emergent monitoring technology could resist the leap in logic between technical skill and political benefit. Ted Greenwood, for example, concluded his 1972 description of technical monitoring devices with the following assertions.

1. . . . the very fact that information is available concerning a potential adversary's current capabilities and the physical constraints on his plans for the future, contributes to arms control by encouraging unilateral restraint in weapons deployment.<sup>67</sup>

---

<sup>66</sup>Stone, "Can the Communists Deceive Us?", p. 197.

<sup>67</sup>Greenwood, "Reconnaissance, Surveillance, and Arms Control," p. 24.

2. . . . we saw [in an earlier part of the paper] that observation satellites could unilaterally verify, with high confidence, an agreement imposing numerical limits on ICBMs, SLBMs and ABMs.<sup>68</sup>
3. Together with electronic reconnaissance, observation satellites also provide the ability greatly to reduce the possibility that the Soviet Union could clandestinely manufacture strategic weapons without deploying them. Therefore the risk of the Soviet Union achieving a strategic advantage as a result of a SALT treaty is a very low one.<sup>69</sup>

In his related article a year later, Greenwood, after another searching examination of the technical espionage skills at American disposal, induced the following political generalizations:

1. Although the utility of [nontechnical] information sources cannot be denied, they do have the disadvantage of relying on inference. Reconnaissance and surveillance, on the other hand, are dependent primarily on the physical properties of electromagnetic sensors and therefore provide less ambiguous information than other techniques.<sup>70</sup>
2. The major conclusion that can be drawn from the analysis presented here is that the U.S. can, with its observation satellites and missile-test-surveillance systems, verify Russian observance of the SALT I ABM treaty and interim agreement with high confidence.<sup>71</sup>

---

<sup>68</sup>Ibid.

<sup>69</sup>Ibid., p. 25.

<sup>70</sup>Greenwood, "Reconnaissance and Arms Control," p. 24.

<sup>71</sup>Ibid., p. 25.

3. The conclusion of verifiability is not dependent however on Russian cooperation in nonconcealment . . . . In fact, the purpose of reconnaissance systems is to detect or deter cheating.<sup>72</sup>

According to Greenwood, then, the capability to "monitor" or to "observe" was logically equivalent with the capability to "detect cheating" or to "verify" an agreement. As the U.S. moved into the SALT era, the technical process had become one with the political process. Greenwood was not alone of course among the resourceful students of technical monitoring skills. Russell Spurr's 1977 piece in the Far Eastern Economic Review asserted, for example:

Nothing has been transformed more by these odd looking 'birds' than the ancient art of spying. All, or nearly all, is immediately revealed to the all-seeing eye circling miles above the earth. Never have the two superpowers known so much about each other -- and everyone else.... Nothing can be completely concealed from the ubiquitous sky-spy unless the defender goes underground. Even then, cameras which can detect a 'chalk line from 100 miles up' will note the entrance and raise analytical eyebrows.<sup>73</sup>

And although clearly given to less absolutism than other students of technical reconnaissance, Asa Bates could evidently not constrain his own political inferences either.

---

<sup>72</sup>Ibid.

<sup>73</sup>Spurr, p. 1.

A satellite circling the world in 45 minutes will pick up more information in a day than the espionage service could pick up in years. And satellite information is almost totally reliable, while espionage information is always, by its very nature, questionable.<sup>74</sup>

Thus, according to Bates, a comparison in kind between the products of human and mechanical espionage reveals not just the quantitative but the qualitative ("totally reliable") desirability of the latter as well -- an apples and oranges logic which came to be widely accepted.

A review of the technical literature on the growth of remote monitoring capability is noteworthy in other respects as well. Those who describe the arms control implications of such devices, particularly after SALT I, are virtually unanimous in their appeals to the importance of the legal dignity purchased for the technical devices as a result of SALT. This would become increasingly significant, as will be discussed in the following section of this chapter, because legal thinkers would find similar comfort in the technical assertions. As the two arguments fed one another in this manner, the political consequences of technical-legal ambiguity, so glaringly absent from the Cuban experience, would be placed on hold for arms

---

<sup>74</sup>Bates, p. 64.

control's implementation and enforcement phase, when the anticipated transformation of reality would fade into diplomatic evasions and strained rationalizations. Solutions to the chasm described in Part I would prove extra-technological because the problem itself was not a technical one. It never was. Yet once the expectations were generated within an open democratic society, they would demand their fulfillment. The piper would indeed be paid; but as with the Cuban experience, the price would be a matter of negotiation long after presidential signatures had dried on paper, long after international lawyers had submitted their briefs, and long after analysts' data banks had been reduced to interesting grist for doctoral candidates.

### 3. The Institutionalization

During a May 1972 press conference in Moscow just after SALT I had been ceremoniously signed by appropriate Soviet and American officials, U.S. negotiator Gerard C. Smith and National Security Advisor Henry A. Kissinger were asked about Soviet submarine limitations under the agreement.

Question. What submarines do they have under construction now? I think you are evading the point on the number of submarines they will be frozen at under this treaty.

Ambassador Smith. I am purposely evading the point because that is an intelligence

estimate that I am not in a position to give out.

Dr. Kissinger. Since I am not quite as constrained or don't feel as constrained as Ambassador Smith, lest we build up a profound atmosphere of mystery about the submarine issue, I will straighten it out as best I can. The base number of Soviet submarines is in dispute. It has been in dispute in our intelligence estimate exactly how much it is, though our intelligence estimates are in the range that was suggested.

Question. Forty-one to forty-three?

Dr. Kissinger. I am not going to go beyond what I have said. It is in that general range [It was 48]. The Soviet estimate of their program is slightly more exhaustive. They, of course, have the advantage that they know what it is precisely. (Laughter)<sup>75</sup>

Numerically, the Soviet SLBM question would not turn out to be a major compliance problem after SALT I's ratification -- once it was understood that the Agreement itself had licensed the Russians to deploy over a thousand of them. "Surprises" -- analogous to the unexpected atomic and hydrogen bomb explosions of earlier times -- however, would continue to frustrate American expectations with regard to qualitative Soviet

---

<sup>75</sup>Press Conference of Dr. Henry A. Kissinger, Assistant to the President for National Security Affairs, and Ambassador Gerard C. Smith. Office of the White House Press Secretary, 26 May 1972, as reprinted in U.S. Congress, Senate, Committee on Armed Services, Military Implications of the Treaty on the Limitations of Anti Ballistic Missile Systems and the Interim Agreement on Limitation of Strategic Offensive Arms, 92d Congress, 2nd Session, 1972, pp. 97-103.

progress in both the SLBM and ICBM fields. One reason for these surprises was the increasingly obvious inability of the U.S. to anticipate the product of Soviet research and development or even major construction activities. A related reason for confusion was the willingness of the U.S. to negotiate force level ceilings on the sole basis of what its own intelligence had estimated regarding Soviet strength, without even insisting that the Soviets confirm the commonality of the baseline. Once launcher deployments were "frozen" at these uncertain levels, it was clear that negotiations would simply be continued into the post-ratification, implementation phase of the Agreement.

That American force levels, by comparison, would be frozen at levels that were specifically not uncertain in the context of the Agreement, was a measure of how much reliance the U.S. had come to invest in the efficacy of technical-legal enforcement mechanisms. In what would amount to a ratification of the long evolving relationship between technical and legal bridge theories, the following provisions would be common to the 26 May 1972 ABM Treaty (Article XII), the 26 May 1972 Interim Agreement on the Limitation of Offensive Arms (Article V), and the unratified 18 June

1979 Treaty on the Limitation of Strategic Offensive  
Arms (Article XV):

1. For the purpose of providing assurance of compliance with the provisions of this Treaty [or Interim Agreement], each Party shall use National Technical Means of verification at its disposal in a manner consistent with generally recognized principles of international law.
2. Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this Article.
3. Each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Treaty [or Interim Agreement]. This obligation shall not require changes in current construction, assembly, conversion, or overhaul practices.

The full impact of legal bridge theories' influence on the SALT process can only be understood in the context of earlier arguments such as those of Falk and Barnet (see previous chapter). The reader will recall that the acceptance of uncertainties and risks in the arms control process was, for these legal theorists, not a "political accommodation" in conventional terms, but a "recognition of powerlessness," a reflection of one's "decision to create a new relationship," and the manifestation of "an expectation of political transformation." Thus SALT I's "Basic Principles of U.S.- Soviet Relations"

chartered such a transformation by promoting "the reduction of tensions in the world, and the strengthening of universal security and international cooperation," guided by principles of "reciprocity, mutual accommodation and mutual benefit" in lieu of cold war tensions. Both sides also pledged, in keeping with the traditional end of legal idealism to "regard as the ultimate objective of their efforts the achievement of general and complete disarmament and the establishment of an effective system of international security in accordance with the purposes and principles of the United Nations."<sup>76</sup>

Elaborating on whatever vagueness might lie in the wake of such generalizations, Mr. Kissinger explained two weeks later to Congressional leaders gathered at the White House that

... any country which contemplates a rupture of the agreement or a circumvention of its letter and spirit must now face the fact that it will be placing in jeopardy not only a limited arms control agreement, but a broad political relationship.<sup>77</sup>

---

<sup>76</sup>Basic Principles of Relations between the United States of America and the Union of Soviet Socialist Republics, Department of State Bulletin, 26 June 1972, pp. 898-899.

<sup>77</sup>The White House, Congressional Briefing by Dr Henry A. Kissinger, Assistant to the President for National Security Affairs - The State Dining Room, Office of the White House Press Secretary, 15 June 1972, as reprinted in U.S. Congress, Senate, Committee on Armed Services, Military Implications of the Treaty ..., pp. 117-118.

Far from empty diplomatic rhetoric, the "Basic Principles" amounted to a legal framework that was evidently central to the expectations of Dr. Kissinger, who insisted that "these principles reflect an aspiration and an attitude" which "[t]his Administration will spare no effort to translate ... into reality;"<sup>78</sup> and that "[n]o decision of this magnitude could have been undertaken unless it had been part of a larger decision to place relations on a new foundation of restraint, cooperation and steadily evolving confidence."<sup>79</sup> SALT I also institutionalized the position taken by Falk and Barnet whereby in the early stages of the disarmament process, violations were generally considered low risk possibilities even if they did occur. Thus John Newhouse records the mid-1960s logic driving the U.S. Government to allow

---

<sup>78</sup>Ibid., p. 123.

<sup>79</sup>Ibid., p. 122. See also, from the remarks of 15 June 1972, Kissinger's beliefs that: "The Soviet leaders are serious men, and we are confident they will not lightly abandon the course that has led to the summit meeting and to these initial agreements (p. 123);" that "We will pursue [future] negotiations with the attitude towards bringing about a change in the international climate that I have described (p. 125);" that "the deepest question we face is not whether we can trust the Soviets but whether we can trust ourselves (p. 124);" and that "the two countries have a unique opportunity right now to move into an entirely different relationship of building additional trust (p. 128)."

uncertainties in order to enable otherwise unlikely agreements:

... ACDA and the CIA kept busy trying to design effective, if not ideal, agreements. . . . Holding verification to national rather than on-site means might maneuver the issue onto negotiable ground. Cheating, it was agreed, would be possible, but probably not worthwhile except on a scale large enough to be observed. [The Joint Chiefs argued that] arms control buffs ... were ignoring the problems of cloud cover over Russia, as well as camouflage and other techniques of concealment. Such objections, however, flew in the face of CIA experience in monitoring Soviet missile deployments. Gradually, the attitude of the Chiefs began to change ...<sup>80</sup>

Again, however, it must be stressed that the American acceptance of such risk in the legal context was based on the concurrent belief that technical reconnaissance had rendered uncertainties hardly worth mentioning. Thus Kissinger, who deferred most questions regarding the monitoring of SALT I to classified CIA testimony, assured congressional leaders that "we are confident that national means of verification are sufficient to monitor the numerical limits of this agreement."<sup>81</sup> Additionally, Secretary of Defense Laird asserted to the Senate Armed Services Committee that "I am completely satisfied that our

---

<sup>80</sup>John Newhouse, Cold Dawn (New York: Holt, Rinehart, and Winston, 1973), p. 70.

<sup>81</sup>The White House, Congressional Briefing by Dr Henry A. Kissinger, p. 126.

national technical means of verification are adequate to verify Soviet compliance with the provisions of the agreements."<sup>82</sup> Laird's confidence, however, was grounded in the legal provision of the agreements which banned interference with NTM. Similarly, Chief U.S. Negotiator Gerard Smith, calling attention to the "landmark" SALT I provisions for noninterference and nonconcealment, asserted that "the world should be a more open place as a result of these two undertakings."<sup>83</sup> And as a result of these provisions Smith expressed his own "confidence in our national technical means of verification's capability to reveal the current number of Soviet ICBMs. We do not need Soviet confirmation of our intelligence [baseline numbers]."<sup>84</sup>

On the basis of such confidence in the technical - legal mechanisms at their disposal, the SALT I architects expected the agreements' enforcement process

---

<sup>82</sup>National Security Assurances in a Strategic Arms Limitation Environment, by Melvin R. Laird, Secretary of Defense, June 20, 1972, in U.S. Congress, Senate, Committee on Armed Services, Military Implications of the Treaty . . ., p. 153.

<sup>83</sup>Statement of Ambassador Gerard C. Smith, June 28, 1972, in U.S. Congress, Senate, Committee on Armed Services, Military Implications of the Treaty . . ., pp. 287-288.

<sup>84</sup>Ibid., p. 288.

to be a fairly straightforward undertaking. It was implicitly acknowledged that the agreements were fraught with ambiguities, but the combined effects of "legalized" monitoring mechanisms, anticipated improvements in NTM, the presence of a Standing Consultative Commission,<sup>85</sup> and a broadly defined "new relationship" of which SALT was the centerpiece, were thought to have formulated a new regime that could reconcile serious disagreements and ameliorate negative strategic consequences. In short, these control devices were believed to have rendered risks and uncertainties tolerable. The theory of verifiable arms control held that by restraining its own defense programs in accordance with treaty provisions and by closely monitoring Soviet compliance with those same provisions, the U.S. could expect several specific constraints to characterize progress in the Soviet arms

---

<sup>85</sup>The Standing Consultative Commission (SCC) was established by Article XIII of the 26 May 1972 ABM Treaty, and Article VI of the Interim Agreement "to promote the objectives and implementation of [these agreements]." Importantly, the SCC's power was limited to that of raising issues, considering questions, considering possible changes, and negotiating outstanding issues. It was specifically not empowered to act in any jurisdictional capacity or to render verdicts. The provision of clarifying information was to be accomplished on a "voluntary basis" and the parties were guaranteed no recourse if such voluntarism was for any reason not forthcoming.

buildup. In turn, SALT I's premise was that this restraint would stabilize the existing balance, preserve the integrity of American deterrent strength, and thereby enhance "crisis stability." These anticipated limits on the U.S.S.R., made possible by technical intelligence as dignified by the Treaty's language, included several particulars; but of special importance among the constraints assumed to have been imposed were the provisions limiting further expansion of the Soviet counterforce mission.

To preserve the integrity of the land-based American retaliatory threat, especially after the use of ABM's for site defense had been ruled out, the U.S. considered it urgent in SALT I to constrain aggressive Soviet heavy ICBM production. There were already over 300 SS-9s in the Soviet arsenal, each with 11,000 lbs throw weight capable of launching single warheads of 20 megatons or three separate warheads (MRVs) of up to five megatons each. When SALT I formally began in 1967, the SS-9 already posed a serious counterforce threat to the U.S., but the increased coverage of the MRV payload would be sufficient in itself to threaten the 100 Minuteman launch control centers; the possibility of 1000 such systems with MIRV capability would clearly endanger the entire U.S. ICBM force if

not countered. Having chosen arms control as the preferred means of meeting this emergent threat, the U.S. sought in SALT I not only to constrain the "heavy" SS-9 challenge, but to prevent the conversion of the 970 smaller (2 MT, single RV, 2200 lb throw weight) SS-11s into similar first-strike type weapons as well.

John Newhouse, who describes the SS-9 as "a land based missile of stupendous destructive power,"<sup>86</sup> recalls that "negotiating a hold on the SS-9 program was not only basic to the U.S. position, but an excellent reason to press SALT vigorously."<sup>87</sup> Nevertheless, the U.S. agreed in SALT I to permit not just the SS-9s but their replacement by a much larger launcher, the construction of which was already underway, as well. This was rendered somewhat palatable to American negotiators because, categorized as "heavy" ICBMs, the SS-9 and its MIRVed replacement would be numerically frozen at their May 1972 silo construction level of 313. The U.S. had no way of estimating, of course, that the SS-18 would replace the SS-9 with its 16,500 lbs throw weight capable of carrying as many as 30 RVs. Yet even today if the

---

<sup>86</sup>Newhouse, p. 10.

<sup>87</sup>Ibid., p. 168.

SS-18 Mod 4 payload is held to its more threatening (from a counterforce standpoint) level of 10 independently targeted RV's, it probably does not by itself provide great Soviet confidence in the ability to dominate a protracted nuclear war. Having made such a presumption in 1972 largely on the basis of speculation, however, the U.S. had magnified immeasurably the importance of its enforcement mechanisms with regard to SS-11 launcher enlargements.

Even at the time of SALT I the Soviet SS-11 force had 33% greater throw weight than the entire Minuteman force.<sup>88</sup> Yet Minuteman remains the stalwart of the American ICBM force today; and, even though its current aggregate throw weight is still 21% less than the SS-11's had in 1972, Minuteman III is widely regarded as a counterforce threat to the Soviets. Therefore, when combined with either the SS-9 in 1972 or its subsequent replacement, the Soviet "light" ICBM force

---

<sup>88</sup>Throw weight numbers throughout this discussion are drawn from John M. Collins, The U.S.-Soviet Military Balance, Concepts and Capabilities 1960-1980 (Washington, D.C., McGraw-Hill Publications Co., 1980), pp. 438-451. The Soviet SS-13, of which there were 60 in 1972, had only 24% less throw weight than the Minuteman III. Together with the SS-11, the SS-13 force constituted a "light" ICBM force with over 2.5 million pounds throw weight -- some 35% greater by itself than the 1.6 million pounds throw weight of the entire Minuteman (I, II and III) force in 1972.

represented a substantial threat to crisis stability in itself at the time of SALT I. Recognizing the implications of significant growth in this already menacing threat, and seeking primarily to preserve its deterrent posture through the arms control process, the U.S. therefore insisted that the light ICBM launchers, particularly the SS-11, could not be converted into heavy ICBM launchers.

Because of the limitations on U.S. monitoring capability, and because the U.S. was negotiating with a closed and deceptive adversary, it was determined early on that limitations would be placed not on throw weight but on the size of the more visible "fixed land based ICBM launchers." Although throw weights can be improved in any number of ways besides increasing their launcher size, the importance of American enforcement ability under the conditions described had necessitated criteria that were more compatible with the technical-legal mechanisms by which compliance would subsequently be measured. Although this was in keeping with the Eisenhower/Kennedy doctrine of negotiating constraints on whatever weapon programs can be monitored (the "necessary and sufficient" or "cause and effect" status of monitoring capability), a number of uncertainties were accepted in the process.

In the first place, Article II of the Interim Agreement had failed to define key terms:

The Parties undertake not to convert land based launchers for light ICBMs, or for ICBMs of older types deployed prior to 1964, into land-based launchers for heavy ICBMs of types deployed after that time. (Emphasis added)

Clearly uncomfortable with the obvious confusion that would result from this ambiguity during the Agreement's implementation phase, the U.S. added the following Unilateral Statement:

D. "Heavy" ICBMs

The U.S. Delegation regrets that the Soviet Delegation has not been willing to agree on a common definition of a heavy missile. Under these circumstances, the U.S. Delegation believes it necessary to state the following: The United States would consider any ICBM having a volume significantly greater than that of the largest light ICBM now operational on either side to be a heavy ICBM. The U.S. proceeds on the premise that the Soviet side will give due account to this consideration. (emphasis added)

Further clarification, which would become relevant during Kissinger's June 15 meeting with congressional leaders, was attempted in the form of a Common Understanding added to the Agreement:

A. Increase in ICBM Silo Dimensions

Ambassador Smith made the following statement on May 26, 1972: The Parties agree that the term 'significantly increased' means that an increase will not be greater than 10-15 percent of the present dimensions of land based ICBM silo launchers. Minister Semenov replied that this statement corresponded to the Soviet understanding.

Scientists' counsel as to what could be effectively monitored had driven SALT I's subject matter to constrain silo-launchers rather than the missiles or weapons themselves. Legal counsel had called an awkward set of provisions, to which the Soviets never completely agreed, satisfactory mechanisms for the enforcement of American security concerns. On the basis of these guidelines, Dr. Kissinger argued boldly to congressional leaders:

There is also the prohibition on conversion of light ICBMs into heavy missiles. These provisions are buttressed by verifiable provisions and criteria, specifically, the provisions against any significant enlargement of missile silos. . . .<sup>89</sup> The agreement specifically permits the modernization of weapons. There are, however, a number of safeguards. First there is the safeguard that no missile larger than the heaviest light missile that now exists can be substituted. Secondly, there is the provision that the silo configuration cannot be changed in a significant way and then the agreed interpretive statement or the interpretive statement which we made, which the other side stated reflected its views also, that this meant that it could not be increased by more than 10 to 15 percent. We believe these two statements, taken in conjunction, give us an adequate safeguard against a substantial substitution of heavy missiles for light missiles.<sup>90</sup>

---

<sup>89</sup>The White House, Congressional Briefing by Dr. Henry A. Kissinger, p. 121.

<sup>90</sup>Ibid., p. 128.

This widely quoted statement by Dr. Kissinger, offered in response to a question from Senator Henry M. Jackson, would represent the clearest articulation of Kissinger's compliance policy until the Soviets quadrupled the SS-11's throw weight two years later with the SS-19. The SS-19 will be an important topic of discussion in Part III of this paper, and the relaxation in Kissinger's compliance policy that it would come to represent will become evident in the light of his June 15, 1972 explanation to Congress. The importance of the famous statement in the context of this discussion emanates from its remarkably clear expression of Kissinger's faith in technical-legal enforcement devices. Even when the three clauses cited from the Interim Agreement are taken collectively, American confusion and uncertainty about their meaning were widespread despite Kissinger's confidence.

In particular, Senator Jackson, who was frustrated by Kissinger's claim to executive privilege in refusing to testify in Senate hearings, rejected the implication that enforcement mechanisms could achieve the expectations Kissinger had promised. In an exchange with U.S. negotiator Paul Nitze, Jackson spelled out what he considered a particularly troublesome possibility:

Senator Jackson. Well, is it not a fact that they could increase the volume of one of

those silos by about 50 percent? You see, we use the 10 to 15 percent figure to refer to the dimensions -- length and diameter -- of the silo. But when the length and the diameter of a cylinder are increased by 15%, the volume is increased by about 50 percent, in fact, by 52 percent I believe.<sup>91</sup>

Nitze agreed:

Mr Nitze. If one were to take the worst case, that if the diameter were increased by 15 percent, and the depth were increased by 15 percent, why then certainly one approaches approximately 50 percent. (emphasis added)

Senator Jackson. I was trying to find out what is permitted. And it is around 50 percent?

Mr Nitze. I think that would be the worst case . . . . However, the background to the negotiations makes it clear that an increase of up to 15 percent would be permitted in only one dimension or possibly a combination of two dimensions, not in both length and diameter.<sup>92</sup>

Jackson, of course, was viewing the Agreement as a security compromise with a closed and traditionally deceptive adversary; administration witnesses, on the other hand, were viewing it as the centerpiece of a "new relationship." The difference in vantage points drives differing conclusions regarding how much uncertainty can be accepted. For Kissinger, such risks

---

<sup>91</sup>U.S. Congress, Senate, Committee on Armed Services, June 28, 1972, Military Implications of the Treaty . . ., p. 312.

<sup>92</sup>Ibid.

were tolerable with regard to SS-11 silo enlargements because of the short-term (5 year) character of the Agreement, and because, according to Article VIII, the U.S. retained "the right to withdraw from this Interim Agreement if it decides that extraordinary events ... have jeopardized its supreme interests." Kissinger's interpretation of the Agreement's terms were particularly relevant because, as Chairman of the National Security Council, and of the NSC Verification Subpanel as well, his beliefs as to what was prohibited would hold considerable sway during the Agreement's implementation phase. These beliefs were repeated on June 20 by Secretary of Defense Melvin Laird:

I believe that any growth of light missiles, in either diameter or depth that exceeds 10 to 15 percent would be a violation of the agreement. I believe that that is the manner in which those words should be read by the United States.<sup>93</sup>

That American faith in legal devices had been oversold would become evident three and a half years later when Kissinger explained to the press that:

The Soviets specifically disavowed [during negotiations] . . . Unilateral American Statements. I think it is at least open to question whether the United States can hold the Soviet Union responsible for its own

---

<sup>93</sup>Ibid., p. 165.

statements when the Soviet Union has asserted that it does not accept that interpretation.<sup>94</sup>

That American confidence in the perceptiveness of NTM had been oversold would become evident at the same time, when Kissinger acknowledged that "[w]e obviously did not know in 1972 what missiles the Soviet Union would be testing ... All of my answers [regarding the SS-19 etc] obviously, had to be directed toward the missiles I knew, and not toward the missiles that came along 2 years later."<sup>95</sup> That the closed Soviet system had continued to confuse and frustrate American analysts is evident from the entire story of the SALT I guessing game. That traditional Soviet use of strategic deception was at work throughout the process is clear from the fact that the SS-19, though clearly incompatible with the American understanding of the Agreement, was well into its development phase when SALT I was being negotiated. This enabled the employment or avoidance of definitions that would have restricted Soviet weapons expansion in the manner intended by the U.S. That the U.S. was willing to

---

<sup>94</sup>Dr. Henry A. Kissinger, Press Conference, December 9, 1975. Cited by David S. Sullivan, "The Legacy of SALT I: Soviet Deception and U.S. Retreat," Strategic Review, Winter, 1979, p. 34.

<sup>95</sup>Ibid.

institutionalize its toleration of these uncertainties is evident from the strained arguments presented to Congress in Administration testimony, from subsequent congressional approval of the Agreements, and from continuation of the same process over the ensuing years.

Further evidence in support of each of these conclusions has been drawn from the ABM Treaty -- particularly regarding its provisions for radar testing and air defense system upgrades -- and from submarine and SLBM launcher limitations in the Interim Agreement. David Sullivan has done extensive work relating to Soviet deceptiveness and American acceptance of obscure ceilings on SLBM launcher constructions; Sullivan observes, for example, Soviet concealment of thirty H-class SLBMs in the 950 total to which they were "frozen" -- in order to preclude their deactivation.<sup>96</sup> Similarly, the case has been well established elsewhere that Kissinger agreed to a three to two (ratio) Soviet advantage in SSBNs on the basis of his belief that "the Soviet Union requires three submarines for two of ours to be able to keep the same number on station."<sup>97</sup> The Soviets successfully

---

<sup>96</sup>Sullivan's work is cited extensively in Chapter II of this project, but see for example his piece cited in footnote number 94 above, pp. 35-36.

<sup>97</sup>The White House, Congressional Briefing by Dr Henry A. Kissinger, p. 123.

advanced this argument throughout SALT I's negotiation process even though their SS-N-8 was about to begin testing with sufficient range to reach American targets without leaving their home ports.

SALT I's ratification culminated thirty-seven years of debate and compromise, and represented a benchmark victory for proponents of arms control as a process. The argument once articulated by Truman -- that arms control or arms racing could produce similar results but that arms control was ethically preferable -- had long since come to be regarded as a valid policy guideline. Now the second order question of compliance control standards with a closed and deceptive negotiating partner had been answered as well. Transition era theories purporting to minimize compliance related risk had come to be regarded as valid enablers of arms control. Uncertainties, acknowledged and unacknowledged, were deemed an acceptable price for preservation of the process. As a milestone in the struggle between advocates of rigid control and advocates of trust, SALT I had institutionalized the long evolving predominance of the trust end of the spectrum.

The process of arms control had been preserved by this set of American accommodations, and the ratchet

effect produced by a steadily relaxed American compliance policy would continue to purchase one agreement after another over the next decade. Within three months of SALT I's presentation to Congress, the Convention banning production of biological weapons would be added alongside it on the congressional docket. The Peaceful Nuclear Explosions Treaty of 1974 and the Threshold Test Ban Treaty of 1976 would follow with the intention of constraining both sides' future nuclear test explosions to 150 kilotons. SALT II would accept still greater complications in compliance monitoring while continuing those initiated in SALT I. Each of these agreements, like SALT I, would be systematically circumvented by the Soviets and would thereby contribute to the continued decline in American compliance policy. The post-1972 evolution of this compliance policy -- the subject matter of Chapter Eight -- had been necessitated much earlier, however, when theories purporting to rectify a political conflict through technical-legal provisions were accepted in SALT I as a valid basis of security policy.

The 1972 agreements therefore represented not so much the beginning of a new strategic relationship as the codification of one that had been evolving for a generation. The U.S. had pursued arms control agreements from the very beginning of the nuclear age

with the Baruch Plan, had been frustrated in both negotiations and in day to day politics by the obscurity of Soviet words, capabilities, and intentions; Americans had theorized and rationalized about the plausibility of pursuing agreements in spite of this chasm, and, in 1972, had finally consummated this long evolving new worldview in the form of SALT I. The notions that arms control was too important to be inhibited by the absence certainty, and that technical-legal conventions could mitigate the effects of uncertainty anyway, were thereby sanctified.

In light of the argument that had gone on for over a quarter century, and in light of the widespread consensus regarding bridge theories that had come to characterize conventional wisdom by 1972, SALT I was not only inevitable but probably necessary. Too much optimism had been generated by 1962-styled claims about the applicability of NTM, and too much confidence had been mobilized in support of mutual vulnerability/mutual restraint through law, for such policy guidelines not to be employed. The bridge theory had to be tested; to test the theory it was necessary to accept risks; the implementation of SALT I would therefore represent a great social experiment dependent upon the relationship among science, politics, and truth.

### PART THREE

#### EVALUATION OF BRIDGE THEORIES IN PRACTICE

Ought I to have refused to accept Mordred's evidence and over-ridden the whole affair? Ought I to have acquitted her? I could have set my new law aside. Ought I to have done that? But what would have happened to justice then? What would have been the consequence?

(T. H. White, The  
Once and Future King)

I guess every form of refuge has its price.  
The "Eagles," 1973

Only the disciplined mind can see reality, Winston. You believe that reality is something objective, external, existing in its own right. You also believe that the nature of reality is self evident. When you delude yourself into thinking that you see something, you assume that everyone else sees the same thing as you. But I tell you, Winston, that reality is not external. Reality exists in the human mind, and nowhere else.

(Orwell, 1984)

This discussion began by describing a broad and multifaceted chasm separating the U.S. and U.S.S.R. Aside from the quantitative and qualitative asymmetries in security related information to which open and closed

societies traditionally avail one another, Part One described characteristics unique to the two States in question that further exacerbate their bilateral relationship. A well developed tradition of diplomatic deception, that serves to inform the outside world in accordance with its own competitive interests, renders the Soviet Union not just "closed" but strategically closed. American openness, by comparison, affords a degree of accessibility that renders the U.S. particularly vulnerable to the manipulative skills of a determined adversary. Arms control, as established in Part One, is the political arena in which this chasm is most easily exploited by the closed and deceptive participant. That the Soviet Union is committed to the full utilization of this advantage, while the U.S. is committed to security through negotiation anyway, is the central paradox of modern politics from the standpoint of American national security.

In Part Two, various mechanisms proposed to rectify this dilemma were examined in historical perspective from the immediate post war years to the ratification of SALT I. Logically, there were two fairly straightforward alternatives available to the U.S. so long as the paradox persisted. On the one hand, American leaders could have grasped the reins of

the dilemma by unrelentingly educating their democratic population regarding the inescapable nature of the threat and the resolute strategic commitment required to defeat it. On the other hand, the paradox could be perceived as an unnecessary fabrication of a staid worldview -- one from which a rational escape was discoverable through creative redefinition of the problem and a determined quest for its solution. America's "selection" of the second alternative took place with hardly anyone noticing -- almost as if the cultural underpinning of its national spirit had programmed it to do so. When for reasons that seemed equally mechanistic the Soviets chose the opposite route, a nuclear age struggle was underway in which the participants would pursue differing objectives

The U.S.S.R. would seek to gain strategic advantage by every means of competition short of direct military confrontation with the U.S.; the U.S. would seek strategic equality through cooperation and accommodation -- emphasizing technical-legal solutions to a political, ideological, and strategic problem of historic dimensions. Having persuaded itself that the nuclear factor had changed the rules of international power politics, the U.S. would seek to regulate competition in modern weapons as if competition itself

were of greater importance than the challenge posed by an expansionist, totalitarian regime. The Soviets, on the other hand, would seek to utilize the nuclear factor to pursue its own ends at the expense of the West.

The post war struggle that has transpired under these differing sets of rules has been characterized by two unmistakable trends that are not unrelated to each other. On the one hand Soviet military strength relative to that of the U.S. increased steadily through 1972, when a condition of rough military equivalence existed in static terms with all momentum clearly on the Soviet side. On the other hand, American criteria for "adequacy" in the means of ascertaining Soviet compliance with hypothetical and actual security agreements declined from steadfastness in 1946 to accommodation in 1972. Although neither of these trends could be described as absolutely linear, both have been sufficiently perceptible to discern their cause and effect relationship. Sufficient evidence of the first trend is available elsewhere, too obvious for sensible argument, and beyond the scope of this project. Evidence of the second, dismally abundant as well, was the subject matter of Part Two.

What Truman had called "adequate" in 1950 involved

the "free and open interchange" of relevant information so that the U.S. could be assured of "immediate warning of any threatened violation." Agreements would have to be "policed continuously and thoroughly" by these standards if the U.S. was to make compromises in its superior nuclear strength. Oppenheimer had expressed the same conviction:

There are really two aspects of this: first, you must see that no enterprises are being carried out which are not allowed [i.e. you must establish that prohibited behavior is or is not underway]: second, you must see that allowed ones are really doing what they say they are doing [i.e. you must confirm that compliant behavior -- required or simply allowed -- is underway] and not something wicked on the sly.

In other words, American monitoring machinery would have to be able to prove Soviet noncompliance and confirm compliance at all times. Initially, however, Oppenheimer rejected this twofold requirement not as nonegotiable but as inadequate: its "cops and robbers" implications would place the open society in the impossible position of having to prove both the fact and the intent of any transgression on the part of the closed society. The "cops [were] always dumb cops," explained Oppenheimer, because some things are impossible to prove, and to accept that burden would imply a presumption of innocence. Yet the reason for stringent controls in the first place lay in the total

invalidity of such a presumption: the complete absence of trust. To confirm that compliance is underway, while possible, is no basis for the assumption that noncompliance is not underway, no matter how many instances of compliance are observed. The U.S. could therefore do only one of the two "aspects" of control deemed necessary by Oppenheimer for the subjection of U.S. security to negotiations with the U.S.S.R.

The Soviets would prove inflexible on this issue, as clearly articulated by Deputy Foreign Minister Zorin in 1961 (see Chapter Four). According to what we have called the Zorin reservation, the capacity to confirm (Soviet) compliance -- the license to observe allowed behaviors -- was "control over disarmament," a legitimate demand. But by this same logic, the capacity to prove or rule out Soviet noncompliance -- the license to seek out prohibited behaviors -- was "control over armament," an illegitimate demand. Coupled with an unrelenting Soviet military buildup over the ensuing years and a convoluted logic espoused by American legal idealists, the Zorin reservation became an accepted fact of subsequent security negotiations. Ironically enough, it was institutionalized in SALT I and II by those very provisions purported to give dignity to legal

monitoring. "For purposes of providing assurance of compliance with the provisions of this treaty," began these Articles, NTM shall be used "in a manner consistent with the generally recognized principles of international law." Interference with NTM was prohibited only if technical monitoring was engaged in the practice of confirming compliance; and concealment activities were ruled out only if they were intended to "impede verification of compliance." Moreover, the latter would require no changes in existing practices.

The U.S. had thereby acquired the license to monitor "disarmament;" and the U.S.S.R. had acquired the license to disguise or conceal "armament." Theoretically, this meant that if NTM were seeking to discover noncompliance, the Soviets could legally interfere with American monitoring. The "generally accepted principles of international law," which prohibit "espionage" by anyone's definition, now permitted "control over disarmament," but not "control over armament," which, according to Zorin

...would turn into an international system of espionage, which would naturally be unacceptable to any state concerned for its security and the interests of preserving peace throughout the world.

Presidential Advisor McCloy had of course objected to this meaning of legal monitoring because in his view

...whenever an agreement stipulates that at a certain point certain levels of forces and armaments may be retained, the verification machinery must have the rights and the power necessary to ensure that those levels are not exceeded.

But the 1961 "Agreed Statement of Principles," like all subsequent agreements, would expand the "generally accepted principles of international law" to accommodate only one of the two tasks once deemed essential, and anything unrelated to the "assurance of compliance" would also be unrelated to legal monitoring.

Through this understanding and the continued employment of conceptual ambiguity and strategic deception, the Soviets would (legally) exploit their advantageous position in the chasm described in Part One. With little or no concern that the U.S. could ever conclusively establish their noncompliance sufficiently to degrade public confidence in arms control, Soviet violation of the letter and intent of SALT agreements would proceed unabashedly. American political accommodation would expand alongside increasingly bold Soviet violations during arms control's implementation, just as the standards of legal monitoring had been relaxed alongside the Russian weapons buildup through the years of negotiation. As the Soviets' confidence grew in their ability to violate legally the central (American) purpose of arms

control, American rationalizations for a declining deterrent posture became increasingly imaginative. Since "confirmation of compliance" was proceeding throughout the period, however, public confidence in the arms control process would justify more and more of the same; but since "proof of noncompliance" was impossible, clear evidence of bad arms control would be systematically excluded from the public domain. The same process-preserving ratchet effect that had justified one compromise after another in the evolution of theory would continue in the politics of compliance adjudication. It was preordained.

Part Three of this project examines the application of technical-legal bridge theories to real world political problems during the decade from SALT I's ratification to the present. Chapter Seven begins this analysis by evaluating the performance of these policy guidelines in the enforcement of SALT I and the negotiation of SALT II. Chapter Eight examines the difference between verification in an arms control setting and intelligence in a traditional national security setting. The shift in emphasis regarding what types of questions are asked, and who asks them, will be discussed and evaluated in the context of compliance policy -- the principal consequence of the altered

framework. Chapter Nine concludes this project with an assessment of where the bridge theory tradition has brought the U.S. today in national security management, where it is likely to take us in the future, and what can be done to avoid past mistakes as the politics of compliance adjudication continue to unfold.

## CHAPTER VII

### SALT NONVIOLATIONS AND THE EVOLUTION OF A COMPLIANCE POLICY

AS SALT I moved into its implementation phase, observers looked forward to the discovery of answers to several questions of long standing. The purpose of the agreements had been to secure what was then perceived as a stable condition -- mutual invulnerability of deterrent forces, but mutual vulnerability of societies, to one another's intercontinental range nuclear forces -- and to do so in a manner that would regulate nuclear arms competition with increased mutual confidence in the continuation of the process to lower levels of armament, reduced destructive potential, and perhaps eventually reduced cost. While certain regrettable ambiguities persisted in the agreements' definitions of terms, and in the real world enforcement powers of technical-legal bridge mechanisms, there remained several accepted facts of life that, if true,

would render meaningless such less than perfect controls. Chief among these assumptions was the belief that beyond existing levels of mutually neutralizing forces, no appreciable military or political advantage could be achieved through the expansion of strategic nuclear forces by either side. Thus, even if unresolved conceptual issues did exist, the Soviets would perceive little self interest in their exploitation, let alone in any breach of the agreements. Supporters of SALT I looked to the validation of these assumptions as confidence building experiences that would placate the skeptics and lead to still greater goals as the arms control process rolled on.

When one examines the available literature on monitoring technology, those technical means that were in use at the time of SALT I's ratification may well have been the best the U.S. has ever had in relation to a signed agreement with the U.S.S.R. The major Soviet systems regulated by the agreements -- ABM technology and ICBM launchers, however ill-defined -- were sufficiently observable and measurable to enlighten any objective observer as to SALT I's basic assumptions regarding Soviet acceptance of the mutual vulnerability premise. Though ICBM modernization would undoubtedly

occur, the U.S. would promptly know of emerging threats to its retaliatory credibility and would clearly be able to rectify such a circumvention of SALT's primary objective. The risk associated with American ABM deployment restrictions was minimized by limits placed on the growth of missile launchers, by the impressive detection capability of NTM, and by an express agreement that a follow-on Treaty would place still greater limitations on the enlargement and perfection of ICBMs. In case any of these understandings were not sufficiently clear already, Ambassador Smith made the following Unilateral Statement for the record during SALT I:

The U.S. Delegation believes that an objective of the follow-on negotiations should be to constrain and reduce on a long term basis threats to the survivability of our respective strategic retaliatory forces.... If an agreement providing for more complete strategic offensive arms limitations [is] not achieved within five years, U.S. supreme interests could be jeopardized. Should that occur, it would constitute a basis for withdrawal from the ABM Treaty.<sup>1</sup>

---

<sup>1</sup>Unilateral Statement A. Withdrawal from the ABM Treaty; Protocol of the Interim Agreement between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms, in Arms Control and Disarmament Agreements (Washington D.C.: U.S. Arms Control and Disarmament Agency, 1982), p. 156.

In conjunction with a series of American Unilateral Statements delineating the terms by which Soviet compliance would be evaluated, the statement by Smith tied SALT I's provisions directly to the mutual vulnerability premise, in general, and to the survivability of American forces in particular. These assurances were documented in the agreements as measures designed to encourage Soviet attention to American "perceived security interests." But beyond Soviet comprehension and compliance, they were specified as the conditions under which American compliance would continue. Furthermore, as discussed in the preceding chapter, they represented the conditions under which detente would continue. As Kissinger had assured Congress:

...any country which contemplates a rupture of the agreement or a circumvention of its spirit or letter must now face the fact that it will be placing in jeopardy not only a limited arms control agreement, but a broad political relationship.

In short, the extent to which the Soviets recognized the importance attached by the U.S. to its deterrent posture, would measure, plainly and simply, the extent to which the U.S. itself would comply with SALT I and detente. This was America's compliance policy. It would turn out not to be worth the paper it

was written on. This chapter will demonstrate that the failure of technical-legal controls to bridge the chasm described in Part One was the result of established and predictable characteristics of the Soviet and American approaches to politics. The assumption that these characteristics had somehow changed because weapons had become more destructive, or because of a magnanimous new willingness to negotiate, was simply a false one. The first section of this chapter associates traditional Soviet use of conceptual ambiguity with SALT era politics; the second section demonstrates that Soviet deceptiveness, often exploiting these imprecisions in the wording of agreements, further exacerbated the already difficult task of implementing agreed provisions in SALT I and SALT II; the third section concludes that neither of these traditional Soviet tactics would have been as effective as it was during the SALT era without an equally predictable continuation of American self-deception.

1. The Closed Society: Conceptual Ambiguity Continues.

No matter how effectively the open society may be able to monitor the Treaty related behavior of the closed society, the compliance question cannot be addressed except in the context of the meanings of words in an agreement. As discussed in Part One's

description of the closed Soviet society, variance between the two sides' intended definitions of words like stability, deterrence, security, and even arms control, represented one of the principal risks undertaken by the U.S. in negotiating national security with the Soviets in the first place. The conceptual problem would prove to be very real in both SALT I and SALT II, however, and would complicate the verification problem far more than would any limitations on technical monitoring.

#### Ambiguity Problems in SALT I

The first and most enduring of the conceptual difficulties encountered in SALT I involved how to definitize limitations imposed on ICBMs and ABMs. Because of American inability to count or measure the actual weapons in these categories, negotiators focused attention on those components of the systems that were considered both "observable" with NTM and "necessary" for the actual performance of the weapon system in question. Thus, in the case of ICBMs, limitations would apply not to the missiles themselves, or even to the warheads they carried, but to the large, presumably easy-to-observe silos then supposed "necessary" by both sides for intercontinental delivery of land-based

payloads. The assumptions that missiles need silos, that silos were in fact launchers, or even that launchers required silos, would all prove fallacious on the part of the U.S. SALT I would impose no limits whatsoever -- either in number or in kind -- on Soviet missiles or other offensive weapons; the Agreements would limit the size and number of ICBM silos and SLBM tubes, and would do so in the name of verifiability.

The Soviets would exploit this conceptual ambiguity quite systematically in the implementation of SALT I. Several of the Executive Agreement's most fundamental objectives were defeated when the Soviets began deploying their SS-17s, SS-18s, and SS-19s in 1974. Not only were the missiles themselves virtually unregulated in quantity or quality, but the "cold launch" capability of the SS-17 and SS-18 would render meaningless even the limitations placed on silos.<sup>2</sup> Furthermore, since all three weapons had obviously been under development throughout negotiations, one could say that SALT I failed even before it began. Cold-launch, for example, enabled the placement of larger missiles in smaller silos (the diameter of silos for smaller missiles included room for the flame

---

<sup>2</sup>John Collins, U.S. Soviet Military Balance (Washington, D.C.: McGraw-Hill Publications Co, 1980), p. 446.

generated by "hot launch") and thereby overcame SALT I's presumably crucial limitation on the enlargement of silos.<sup>3</sup> This technique also made rapid-reloading of silos possible -- a capability the Soviets are known to have tested<sup>4</sup> -- and thereby further magnified SALT I's failure to limit missiles.

Another SALT I circumvention that resulted from the indirect definition of ICBMs and ICBM launchers involved the Soviet testing and eventual deployment of the SS-16 -- the world's first mobile ICBM. According to Senator Gordon Humphrey, the SS-16 has been under development since the mid-1960s.<sup>5</sup> But since the Soviets refused all U.S. proposals for a SALT I ban on mobile ICBMs, the new weapon remained unlimited by the agreement's constraints on "fixed" launchers. According to a State Department compliance report, however, neither the cold-launch, reloadable silo issue, nor the mobile SS-16 had merited discussion at

---

<sup>3</sup>Amrom Katz, "Verification and SALT: A Different Line of Insight," in Robert L. Pfaltzgraff, Jr. and Warren Milberg, Eds., Intelligence Policy and National Security (Hamden: Archon Books, 1981), p. 146.

<sup>4</sup>Clarence A. Robinson, Jr., "Soviet SALT Violation Feared," Aviation Week and Space Technology, Sep 22, 1980, p. 14.

<sup>5</sup>Senator Gordon J. Humphrey, "Analysis and Compliance Enforcement in SALT Verification," International Security Review, Spring, 1980, p. 13.

the SCC as of 1978.<sup>6</sup> Such toleration is difficult to explain on legal grounds; these activities were apparently regarded as too insignificant from a strategic standpoint to jeopardize the Agreements. The SS-16 was evidently not discovered in large numbers until more recently; and the SS-18, though 5000 pounds greater in throw weight, was the permitted replacement for the SS-9 heavy ICBM. The SS-9 itself would pose compliance related questions when some eighteen of them were deployed at the Tyuratam test range in violation of SALT I; the whereabouts of those replaced by the SS-18 remain unknown; and the status of those SS-18s produced above "launcher" limits is a mystery as well. Even the more seemingly direct specifications of a "fixed land-based ICBM launcher" would be challenged when the Soviets constructed hundreds of so-called "III-X" silos; but these are issues better understood in the context of U.S. self-deception, than as cases of conceptual ambiguity, and will be addressed as such in section 3 of this chapter.

As noted in Part Two's discussion of verification theories' evolution, however, the problem of conceptual ambiguity was hardly unanticipated by American

---

<sup>6</sup>Department of State, SALT Compliance "White Paper," Feb 1978.

negotiators of SALT I. Indeed various efforts were undertaken by the American delegation throughout SALT I negotiations to secure Soviet agreement to the precise meanings of a variety of ambiguous concepts. When Soviet agreement with meaningful definitions of key terms was not forthcoming, the U.S. appended the agreements with a series of understandings and definitions that the Administration purported, in congressional testimony, to be its principal guideline to compliance related questions. According to William Van Cleave, the agreement submitted to Congress and the public included:<sup>7</sup>

1. The ABM Treaty and the Interim Agreement on Strategic Offensive Arms along with its Protocol on submarines, which were signed by President Nixon and Secretary Brezhnev;
2. A list of "Agreed Interpretations," A through L, which was not signed by the President and Secretary but was initialed by the respective Heads of the Delegations... on May 26, 1972.
3. A list of "Common Understandings," A through F, which was signed or initialed by no one, but which was appended to the agreements submitted to Congress and represented (by the U.S.) as understandings reached during negotiations....

---

<sup>7</sup>William R. Van Cleave, "SALT on the Eagle's Tail," Strategic Review IV (Spring, 1976), p. 50.

4. Finally, a list of U.S. Unilateral Statements, A through G...which commonly were of the nature of the U.S. expressing regret that something in particular was not agreed but wishing to record its position anyway....

Van Cleave elaborates on each of these categories of addenda to SALT I, observing their varying degrees of legality, quasi-legality, or legal irrelevance. More troublesome than the predictable Soviet exploitation of various ambiguities in Treaty language, however, was the American decision to enforce none of these provisions as Nixon and Kissinger had insisted would be the case. The most costly of these after-the-fact adjustments in American compliance policy was the one that treated SS-17 and SS-19 deployments so casually -- even though these missiles would contribute to a 5000 percent increase in Soviet counterforce capability before the Interim Agreement's projected expiration in 1977.<sup>8</sup> Article II of the Interim Agreement had stated vaguely:

The Parties undertake not to convert land based launchers for light ICBMs...into land based launchers for heavy ICBMs.

Elaborating on the obscure notions of "light" and

---

<sup>8</sup>As observed by David S. Sullivan, The Bitter Fruit of SALT: A Record of Soviet Duplicity (Houston: Texas Policy Institute, 1981), p. 16.

"heavy" ICBMs, Agreed Interpretation J explained only slightly more clearly that:

The Parties understand that in the process of modernization and replacement the dimensions of land based ICBM silo launchers will not be significantly increased.

But since the meaning of "significantly increased" remained ambiguous, Common Understanding A (signed or initialed by no one) asserted that:

The Parties agree that the term "significantly increased" means that an increase will not be greater than 10-15 percent of the present dimensions of land based ICBM silo launchers.

And since the notion of "dimensions" was still too nonspecific, U.S. unilateral Statement D expressed "regret" that the Soviets had been unwilling to agree to a workable definition of heavy ICBMs. The Statement went on to define such a missile as one whose volume was "significantly greater than that of the largest light ICBM now operational...."

Soviet deployment of the SS-19, which made use of a 52 percent increase in the SS-11 silo's volume and quadrupled the SS-11's throw weight, meant that the collective impact of these four provisions was nil -- or considerably less than had been promised prior to congressional approval of SALT I. The larger silo, which the Soviets claimed to be compatible with Common Understanding A's 10 to 15 percent restriction on

dimensions, evidently enlarged no single dimension beyond that limit. But the conceptual ambiguity thereby exploited by the Soviets was not the only problem. Unilateral Statement D had anticipated such a circumvention of the Agreement's intent by specifying that it was the volume of the SS-11 silo that could not be "significantly greater," and its closing sentence had tied the continuation of American compliance with SALT I directly to Soviet acceptance: "The U.S. proceeds on the premise that the Soviet side will give due account of [Unilateral Statement D's] intent." But when the Soviets refused to give any account to an American Unilateral Statement, the U.S. failed to act on the basis of its own stated premise. It was an adjustment in compliance policy that ran counter to every representation of the Agreement that the Administration had given to Congress and the public, and that modified the entire purpose of SALT I from an American standpoint.

Although the Soviets had carefully guarded the provision's ambiguity because of a closely held secret to which the U.S. was not privy, and although the SS-18 and SS-19 made nonsense of any Soviet commitment to mutual vulnerability, it was the U.S. retreat on its own commitment that would make SALT I a Soviet

diplomatic victory. All of the claims that had been made on behalf of NTM had evidently been fulfilled, with regard, for example, to the SS-19, and in the final analysis the legal provision had been articulated and presented to Congress clearly enough as well. The political decision -- to live with the violation -- simply demonstrated the weakness of technical-legal controls when the Soviets are committed to the deployment of a weapon -- however "destabilizing" it may be from an American standpoint.

Conceptual ambiguities that proved costly to the U.S. in SALT I, however, were hardly limited to the Executive Agreement on offensive arms. The Anti-Ballistic Missile Treaty, which effectively terminated a highly credible American strategic program -- one that would have rendered Soviet offensive "surprises" considerably less threatening -- was plagued with verbal shortcomings of its own, and these too would be fully exploited by the Soviets. The problem of constraining Soviet ABM advancements had been an important one for the U.S. for reasons completely apart from the accompanying trade-off of a vastly superior American BMD system. American negotiators knew full well that Soviet war fighting potential could be enhanced during the period of SALT

I's jurisdiction even if the intent of the Agreements was observed. The Interim Agreement, after all, would explicitly permit significant Soviet ICBM modernization even while the ABM Treaty ruled out the American site defense option. Yet domestic political realities seemingly dictated the ratification of such unpleasanties if for loss-cutting purposes alone. In addition to the damage limiting opportunities afforded them in the language of SALT I, however, the Soviets -- who had not followed the American lead by dismantling their air defense system in the 1960s -- had some 10,000 to 12,000 SAM launchers deployed<sup>9</sup> alongside a vast network of air-defense radars, and an ongoing research and development effort to upgrade them to a nationwide ABM system. The Soviets, in fact, had initially claimed an ABM role for one of their SAM systems, the SA-5, but the U.S. had determined from NTM related evidence that the effort had apparently been unsuccessful and that the SA-5 was probably now an air defense system.<sup>10</sup> Such a

---

<sup>9</sup>William R. Van Cleave, "SALT on the Eagle's Tail," p. 52.

<sup>10</sup>Michael Mihalka, "Soviet Strategic Deception, 1955-1981," The Journal of Strategic Studies, 5 (March, 1982), p. 83. Mihalka presents evidence that Soviet deception assisted the U.S. in reaching this conclusion -- a matter that will be discussed in the following section of this Chapter.

possibility, however, was disconcerting for the U.S. from the standpoint of Treaty language because if SAM systems were ever upgraded to an "ABM mode," the possibility of a Soviet breakout from the ABM Treaty would be dramatically enhanced.

Whether because of intense political pressures on the Nixon Administration to obtain an agreement, or because of technological snobbery toward Soviet ABM development, the U.S. nevertheless agreed to a treaty that failed to define either what constituted an ABM radar or what distinguished SAM testing in an air-defense mode from SAM testing in an ABM mode. Once again, it would appear from examination of the Treaty language (Article II) that, if both sides were committed to mutual vulnerability, the legal constraint was reasonably clear:

...an ABM system is a system to counter strategic ballistic missiles or their elements in flight trajectory, currently consisting of: (a) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role, or of a type tested in an ABM mode... (c) ABM radars, which are radars constructed and deployed for an ABM role, or of a type tested in an ABM mode.

Article VI of the Treaty, in order to "enhance assurance of the effectiveness of the limitations on ABM systems and their components," went on to spell out

both sides' agreement:

(a) not to give missiles, launchers, or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory, and not to test them in an ABM mode; and (b) not to deploy in the future radars for early warning of strategic ballistic missile attack except at locations along the periphery of its national territory and oriented outward.

Since the recurrent notion of "in an ABM mode" was central to the prohibitions presumed to have been imposed, and since the Soviets would not commit themselves to any precise meaning of the phrase, U.S. Unilateral Statement E specified the following interpretation as the principal guideline to its compliance policy on the matter:

...To clarify our interpretation of 'tested in an ABM mode,' we note that we would consider a launcher, missile, or radar to be 'tested in an ABM mode' if, for example, any of the following events occur: (1) a launcher is used to launch an ABM interceptor missile, (2) an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristics of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested to an altitude inconsistent with interception of targets against which air defenses are deployed....

The State Department noted in publications of 1978 and 1979 that during the first two years after SALT I was ratified, "U.S. observation of Soviet tests of

ballistic missiles led us to believe that a radar associated with the SA-5 surface-to-air missile system had been used to track strategic ballistic missiles during flight."<sup>11</sup> The State Department's explanation of this technical observation concluded from a legal standpoint that "the observed activity [testing an air defense radar in an ABM mode] was ... ambiguous with respect to the constraints of Article VI of the possible inconsistency with the provisions of the ABM treaty."<sup>12</sup> In explaining the effectiveness with which the verification process resolved this violation of the ABM Treaty, the State Department allowed as how "the Soviets maintained that no Soviet air defense radar had been tested in [the Soviet connotation of] an ABM mode;" but that, in any case, "a short time later we observed that the radar activity in question had ceased."<sup>13</sup> According to Colin Gray, what State Department Selected Document No. 7 meant by "a short time later" was eighteen months later -- after the Soviets had conducted more than sixty high altitude

---

<sup>11</sup>"Compliance with SALT I Agreements," U.S. Department of State, Special Report No. 55, July, 1979, p. 4.

<sup>12</sup>Ibid., pp. 4-5.

<sup>13</sup>"SALT I: Compliance; SALT II: Verification," U.S. Department of State, Selected Documents, No. 7, Feb, 1978, p. 6.

tests with the SA-5 radar in an ABM mode.<sup>14</sup> According to a Heritage Foundation report in 1978, over a dozen such tests were conducted before the U.S. even raised the issue at the SCC.<sup>15</sup> And according to Melvin Laird, who had been the Administration's principal witness in advocacy of SALT I's ratification, the Soviets only discontinued the SA-5 SAM upgrade tests when they did because "they had accomplished all the illegal research and development they desired."<sup>16</sup>

Reports in the open literature have cited other Soviet uses of "non ABM" equipment in the American connotation of an ABM mode as well. According to William Safire, for example:

Soviet deception managers must know our surveillance capacity, but occasionally we get a break: a careless Russian radar operator made it possible for us to discover that enormous radar facilities supposedly to be used only for 'early warning' [Article VI, paragraph b quoted above] were really battle management ABM radars, an egregious treaty violation.<sup>17</sup>

---

<sup>14</sup>Colin S. Gray, "SALT I Aftermath: Have the Soviets been Cheating?" Air Force Magazine, 58 (Nov, 1975), p. 30.

<sup>15</sup>John G. Behuncik, "Examining SALT I Violations and the Problems of Verification," Background (Washington, D.C.: The Heritage Foundation, June 6, 1978), p. 13.

<sup>16</sup>Melvin R. Laird, "Arms Control: The Russians Are Cheating!" Reader's Digest, Dec, 1977, p. 98.

<sup>17</sup>William Safire, "Deception Managers," The New York Times, Aug 6, 1981, p. 16.

If this is correct, then Soviet interceptors have been internetted with radars, enabling the use of early-warning radars to track reentry vehicles for interception. According to Congressman Jack Kemp, the Soviets have deployed large phased-array radars that are about the same size (400 feet by 600-700 feet) as the Soviets' Hen House ABM radar.<sup>18</sup> This means that the Soviets have evidently internetted their SA-5, not with earlier mechanical radars, but with phased-array systems that are far more adequate for reentry vehicle tracking purposes.<sup>19</sup> On the basis of such information, Senator Humphrey concludes that "...The SA-5 could now [1980] have a covert ABM capability in some strategic war scenarios, and the Soviets could 'break out' of the ABM Treaty quickly with their new ABM system."<sup>20</sup>

The Soviets have exploited several other conceptual ambiguities of the ABM Treaty that are more accurately addressed under different headings of this chapter. Mobile ABMs prohibited by Article V of the

---

<sup>18</sup>Jack Kemp, "The SS-19 and the New Soviet ICBM's vis-a-vis SALT II," Congressional Record, Aug 2, 1979, pp. E4076-4077.

<sup>19</sup>As cited by Jake Garn, "The Suppression of Information Concerning Soviet SALT Violations by the U.S. Government," Policy Review, 9 (Summer, 1979), p. 27.

<sup>20</sup>Humphrey, "Analysis of Compliance Enforcement in SALT Verification," p. 3.

Treaty, for example, turned out to be only "movable." An American accounting of Soviet ABM test ranges where Article IV permits ABM testing -- an accounting to which the Soviets did not respond -- later turned out also to include the Kamchatka peninsula, where the Soviets installed a new ABM radar in 1975. These are cases of American self-deception based on evaluations of Soviet intent rather than enhanced Soviet war fighting capability. They are also cases of a closed and deceptive society exploiting the accessibility of an open society that is willing to submit its security to the common meaning of words on paper.

#### Ambiguity Problems in SALT II

Furthermore, most of the conceptual problems associated with offensive systems in SALT I would be repeated by the U.S. in SALT II. Once again it would be silo-launchers that were limited rather than missiles; and negotiators of SALT II would be instructed to treat the SS-19 as a light ICBM. Yet, once again, when the U.S. sought to prohibit Soviet deployment of a new ICBM heavier than the "largest light" ICBM in terms of launch-weight and throw-weight, the Soviets would consistently refuse to provide these figures for the SS-19. When the American negotiators

specified what they regarded as the appropriate figures for the SS-19, and the Soviets refused to agree or even comment on those figures, the U.S. indicated that it would regard its own figures as the upper limit of the one new type of light ICBM permitted by the SALT II.<sup>21</sup> Accordingly, the U.S. was perfectly willing to proceed on exactly the same prohibition that had been circumvented in SALT I on the basis of what was, in effect, another unilateral statement, though one even less clearly articulated.

SALT II would also fail in its effort to clear up ambiguities intended to limit the Soviets to a single "new type" of ICBM. General Rowny has testified that in order to achieve a precise definition of what constituted a "new type," the U.S. sought Soviet agreement on eleven measurable parameters that could not be exceeded on a tested missile without its being categorized as new. Six general parameters to which the Soviets did agree were: (1) Number of stages, (2) length, (3) largest diameter, (4) launch-weight, (5) throw-weight, and (6) type of propellant (i.e. liquid or solid) of the stages. The five more specific

---

<sup>21</sup>U.S. Congress, Senate, Committee on Foreign Relations, The SALT II Treaty, Part 6, Comments submitted by Lt Gen Edward L Rowny, 96th Congress, 1st Session, p. 552.

criteria to which the Soviets would not agree were: (1) total impulse of the post-boost-vehicle (PBV), (2) type of propellant of the PBV, (3) total impulse initial weight of each stage, (4) initial weight of the PBV, and (5) initial weight of each stage. Failure to achieve Soviet agreement regarding the last five parameters meant in essence that the Soviets could build five new ICBMs without violating SALT II.<sup>22</sup> Thus, the Senate Armed Services Committee concluded in December, 1979:

The principal effect of the "new types" limitation in Article IV [of SALT II] is to prevent the U.S. from initiating more than one new type of ICBM while creating unwarranted expectations that the Soviets will be equally constrained. The Committee believes it likely that the Soviets will develop several new ICBMs under the guise of modernization of existing types of ICBM. U.S. agreement to a series of compromises, in which the distinction between "new" and simply "modernized" became hopelessly blurred, followed by still further compromises regarding the encryption of telemetry, has made the "new types"

---

<sup>22</sup>U.S. Congress, Senate, Committee on Foreign Relations, The SALT II Treaty, Part 5, Letter from General Edward L. Rowny to Senator Frank Church on Negotiating Record, Oct 1, 1979, 96th Congress, 1st Session, p. 310. Exclusion of the last five parameters of a "new" ICBM's definition had important implications regarding SALT II's alleged prohibition on telemetry encryption. This will be discussed in Section 2 of this Chapter.

limitation meaningless -- and unverifiable.<sup>23</sup>

Having failed to learn from its SALT I experience that the Soviets cannot be constrained by words from the pursuit of strategic advantages to which they have committed themselves, the U.S. would repeat its mistakes in SALT II. The Reagan Administration, which has implemented the unratified Treaty by Executive decree, now faces the widely anticipated reality of another Soviet violation of what SALT II was supposed to have prohibited regarding new types of ICBMs. Since the violation also involves the illegal deceptive encryption of telemetry, it will be discussed in Section 2 of this chapter.

The Soviets know not only what they themselves plan to deploy over the term governed by an arms control agreement, but also what the U.S. plans to deploy over that period. They agreed in SALT I and II to words that would never explicitly rule out their own plans while knowing full well that according to the U.S. Constitution

...all treaties made, or which shall be made, under authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the

---

<sup>23</sup>U.S. Congress, Senate, Committee on Armed Services, The Military Implications of the Proposed SALT II Treaty, Committee Analysis, Dec 20, 1979, 96th Congress, 1st Session, p. 13. Emphasis mine.

constitution or laws of any state to the contrary notwithstanding.

While U.S. compliance with the concepts and their intent in a treaty is thereby tied to the very efficacy of its political system, Soviet traditions are very different. As Stalin once said:

Words have no relation to actions -- otherwise what kind of diplomacy is it? Words are one thing, actions another. Good words are a mask for concealment of bad deeds. Sincere diplomacy is no more possible than dry water or wooden iron.<sup>24</sup>

And as Leonid Brezhnev assured fellow party leaders in 1973:

We are achieving with detente what our predecessors have been unable to achieve using the fist.<sup>25</sup>

## 2. The Closed Society: Deception Continues

Just as the Soviet tradition of exploiting linguistic imprecision has continued unabated into the SALT era, so too has the Soviet use of disinformation and strategic deception. Chapter Two's discussion of these characteristics of the Soviet political system demonstrated how a carefully orchestrated campaign systematically overstated Soviet military strength in the later 1950's and, playing to the fear of war in

---

<sup>24</sup>As cited by David S. Sullivan, "Lessons Learned from SALT I and II: New Objectives for SALT III," International Security Review, VI (Fall, 1981), p. 360.

<sup>25</sup>Ibid.

Western societies, thereby concealed a truly massive deployment of intermediate range missiles while simultaneously undermining the public credibility of American threat estimates. Michael Mihalka has compared the directions of Soviet deception then and now:

The Soviets have consistently disguised the true strength of their strategic nuclear intercontinental forces: when weak, feigning strength; when strong feigning parity.<sup>26</sup>

The case for continued Soviet deceptiveness is easily documented not simply by the level of its effort but in its effectiveness as well.

Indeed it had required imaginative accounting to establish a case for "parity" at the time of SALT I, especially in light of the roughly three to two ICBM and SLBM launcher ratios that favored the Soviets when the Agreements were ratified. But since the first formal SALT discussion near the end of 1969, the Soviets have either developed or are now developing at least 21 separate strategic systems: 8-9 ICBMs, 4 SLBMs, 2 heavy bombers, 2 cruise missiles, 4 classes of SSBNs, an operational anti-satellite system,<sup>27</sup> a "surge" ABM

---

<sup>26</sup>Mihalka, "Soviet Strategic Deception," 1955-1981, p. 41.

<sup>27</sup>"A Time to Replace the ABM Treaty," National Security Record (Washington, D.C.: The Heritage Foundation, Sep 1982), p.2.

capability, and a mobile ICBM -- all while effectively stifling through arms control any American response. Nevertheless, U.S. News and World Report, in a cover story entitled "Is the U.S. Really No. 2?", answers its own inquiry today with the observation that the "debate" has "just begun."<sup>28</sup> Despite the now overwhelming evidence that Soviet treaty circumventions cannot be checked by any combination of American monitoring and treaty language, a Newsweek poll concludes that 64 percent of Americans either "favor" or "strongly favor" a "ban" on "all testing, production, and deployment of nuclear weapons."<sup>29</sup> David Sullivan has documented 14 cases of Soviet negotiating deception and 30 violations of SALT I and II, but President Reagan has committed the U.S. to strict, if unilateral, compliance with both Agreements.

A part, but only a small part, of the dissonance between the reality and the appearance of the threat can be attributed to the outright failure of American intelligence to comprehend either the Soviet buildup through the 1970's, as documented in the works of

---

<sup>28</sup>Robert S. Dudley, "Is the U.S. Really No. 2?" U.S. News and World Report, Jan. 10, 1983, pp. 16-17.

<sup>29</sup>"A Newsweek Poll: Arms Wrestling," Newsweek, Jan. 31, 1983, p.17.

Albert Wohlstetter, or the magnitude of Soviet investment in their military might, as documented by William T. Lee. The bulk of the explanation rests in a combination of intense Soviet deceptiveness and eagerness on the part of the open Western democracies to hear only what they "want to believe." This section of Chapter Seven addresses the first part of this joint explanation; section 3 examines the second part. Although the case to be made is both more widespread and more damaging than the arms-control context alone, the purpose of this project is to evaluate technical - legal compliance controls and the discussion will remain within that framework.

#### Deception in SALT I

One principal problem associated with Soviet deception -- as a legal question in arms control -- is that the Soviets feel free to conceal anything that is not exactly specified for control in an agreement. There is a limitless variety of verbal escapes built into each meaningful clause of an agreement; to date, the U.S. appears willing to buy them all. In fact, one of the unresolved dilemmas of the open - closed chasm is that, knowing with some precision what they intend

to deploy over the lifetime of an agreement, Soviet negotiators can protect not only weapons themselves from regulation but also their applicability to an agreement's non-concealment provisions. This is easily accomplished because, as suggested in the introductory remarks for Part Three, the Soviets agree to "noninterference," "nonconcealment," and "nonencryption," provisions only to the extent that related information would provide "assurance of compliance with the provisions of this agreement."

The State Department acknowledged in its 1978 report on SALT compliance that during 1974 "the extent of [Soviet] concealment activities associated with strategic weapons increased substantially." The statement went on to assure those concerned about SALT II's compliance loopholes that "[n]one of them prevented U.S. verification of compliance with the provisions of the ABM treaty or the interim agreement," and that since 1975 "there no longer appeared to be an expanding pattern of concealment activities..."<sup>30</sup> How the State Department knew whether the concealed activities were related to compliance or noncompliance, or whether the distinction even mattered, was unclear;

---

<sup>30</sup>"SALT I: Compliance; SALT II: Verification," p.5.

but the carefully worded explanation suggests that noncompliance was not relevant since NTM could find cases of compliance elsewhere -- and that these were a reasonable basis for continued American confidence. SALT I's verification provisions, like SALT II's, did not prohibit concealment, camouflage, and deception (CCD) activities (and therefore permitted them) unless NTM were monitoring Soviet compliance. The reader may even recall along these same lines, that, according to the State Department's explanation, NTM's discovery of the SA-5 radar violation took place during "U.S. observation of Soviet tests of ballistic missiles." Since the latter observation "of compliance" was permitted, and Soviet CCD therefore prohibited, the seemingly accidental observation of unrelated noncompliance could be presented as admissible evidence in accordance with the Zorin reservation. It may have been a similar line of logic that inhibited the U.S. from raising the issue of CCD activities until a year after they were "increased substantially." According to Humphrey, the Soviets first denied that such an increase had even occurred in their CCD activities -- refusing to take corrective measures. Later they simply denied that the activities "interfered with U.S.

national technical means of SALT verification."<sup>31</sup> Evidently the U.S. bought the latter argument when the CCD activities "stopped expanding."

As to the specifics of the Soviet CCD activities in question, a case can be made that in conjunction with conceptual interpretations discussed earlier, Soviet CCD activities applied primarily to those circumventions of SALT I's central purpose that were "not prohibited." According to Colin Gray's 1975 accounting, these included: the placement of thirty by eighty foot canvas covers over SS-16 development efforts; the placement of large canvas covers over SSBN refit facilities at Severmorsk; and the "testing" of two decoy submarines (one made of plastic, the other of nonrigid construction sustained by air pressure).<sup>32</sup> To this listing Van Cleave added, in 1976, various Soviet interferences with NTM's electronic and photographic monitoring missions and the encoding and encapsulating of telemetry signals.<sup>33</sup> That none of these CCD activities would be treated as "violations" would be

---

<sup>31</sup>Senator Gordon J. Humphrey, "Analysis and Compliance Enforcement in SALT Verification," p.10.

<sup>32</sup>Gray, "SALT I Aftermath: Have the Soviets been Cheating?" pp. 31-32.

<sup>33</sup>Van Cleave, "SALT on the Eagle's Tail," p.52.

due not to any counterevidence as to their occurrence, and not to any shortcomings in the perspicacity of NTM, but to the activities' compatibility with a compliance policy that accommodated Soviet CCD.

The SS-16 related concealment activity was a "nonviolation" for a variety of reasons manifesting the interrelationship between SALT I's monitoring provisions and long standing Soviet objection to "control over armament." Since the mobile SS-16 was not constrained by the Agreement's freeze on "fixed" launchers, since U.S. Unilateral Statement B's designation of mobile ICBM launchers as "inconsistent with the objectives of the Agreement" was held to be nonbinding, and since only the exact Soviet interpretation of agreed provisions was subject to prohibitions on concealment, various measures to conceal Soviet development of a mobile ICBM were treated as consistent with SALT I in a legal sense. Furthermore, even if Unilateral Statement B had applied, which it did not, SS-16 CCD could be said to obscure only research, development, and testing, and not the "deployment of operational land based ICBM launchers."

The SS-16 issue gains relevance as a case of Soviet deception, however, for a variety of reasons

beyond its exploitation of legalistic loopholes. Just as many argue today that the deployment of cruise missiles would unacceptably complicate the verification problem, mobile ICBMs -- particularly in the Soviet arsenal -- complicate the already obvious difficulty of counting even ICBM launchers. The SS-16's similarity to the SS-20 IRBM -- which remains "legal" by anyone's interpretation -- in addition to its mobility, gives nonsense to any claimed accuracy in the measurement of Soviet ICBM strength. Therefore, knowing the magnitude of SALT I's gaping conceptual loophole on the issue, President Nixon addressed the mobile ICBM matter directly with Brezhnev at the May 1972 SALT I finalization summit in Moscow. According to Marvin and Bernard Kalb's account of that meeting:

Nixon and Brezhnev recognized the complexity of the problem. After lengthy debate, they promised one another that they would not build land-based mobile ICBMs. But Brezhnev refused to write this promise into the interim agreement. Nixon stressed that the United States would state its own understanding of the prohibition in a separate declaration that would be submitted to Congress; and he warned that if he caught Russia cheating on this issue, it would immediately abrogate the entire SALT agreement. Brezhnev said that he understood and agreed. Kissinger assumed that Brezhnev had political problems with some of his hard liners, who resented such sweeping Soviet

commitments to abstain from building strategic arms.<sup>34</sup>

Melvin Laird acknowledged in 1977 that because of the concealment activity it was not clear whether the Soviets were producing SS-16s merely to replace older missiles, as permitted, or to expand their ICBM force beyond permitted numbers. But Laird betrayed no doubt whatsoever that by elaborate concealment measures -- transporting the SS-16s in darkness, camouflaging their movement through wooded areas, and covering their Plesetsk test ranges in netting seldom penetrable by cameras -- the Soviets were "deliberately interfering with our 'national technical means of verification' -- a flagrant violation of the treaties."<sup>35</sup> If Laird's conclusion is correct, then what the SS-16 issue represents is something altogether different from just clever evasion of the intent of an agreement; it is a case of outright deception, by Brezhnev himself, supported by what the 1966 Soviet Dictionary of Definitions of Military Terms calls maskirovka, which includes among other things "creating deliberate

---

<sup>34</sup>Marvin Kalb and Bernard Kalb, Kissinger, (New York: Dell Publishing Co., 1975), p. 364.

<sup>35</sup>Laird, "Arms Control: The Russians Are Cheating," pp. 99-100.

interference with technical means of reconnaissance."<sup>36</sup> In other words, when the Soviets are unable to protect a desired strategic option through manipulation of an agreement's legal guidelines, they still feel free to engage in the prohibited activity simply by violating the nonconcealment provisions of the agreement as well. Such a conclusion obviously undermines the technical-legal rationale for arms control. Yet the U.S. has never officially acknowledged the SS-16 as any kind of a violation.

Nor was Soviet deception in SALT I's Interim Agreement limited to clauses and phrases relating to land based systems. The Soviets evidently claimed throughout negotiations for this Agreement that "geographical asymmetries" entitled them to the three to two SLBM advantage to which, as noted earlier, Kissinger agreed -- using the same logic in his presentation of SALT I to Congress. The argument was proved fallacious within months of SALT I's ratification when the global range SS-N-8, which rendered access to the broad ocean area unnecessary,

---

<sup>36</sup>Colonel P.I. Skeybeda, ed., Dictionary of Definitions of Military Terms (Moscow, 1966), pp. 228-229. Cited by Sullivan, The Bitter Fruit of SALT, p. 20.

was demonstrated in Soviet tests.<sup>37</sup>

The Soviets also claimed in May 1972 that they had 48 modern submarines "operational or under construction" -- the determining criteria for SALT I's upper limit on SSBNs during the five year jurisdiction of the Interim Agreement. SALT I's verification provisions, however, specified that CCD restrictions "shall not require changes in current construction, assembly, conversion, or overhaul practices." Therefore, the SSBN workyard coverings mentioned by Colin Gray were treated as a legal practice predating SALT I. John Behuncik has described these CCD activities in more detail:

Of major concern in this regard was the charge that the Soviets illegally placed canvas covers and planking over large sections of the prefabrication, assembly and refit facilities for ballistic missile submarines (in particular, the Delta-class) at the Severmorsk construction yard on the Kola Peninsula. Similar camouflage efforts reportedly took place at the Khabarovsk facilities in Siberia as well as at other strategic construction points throughout the Soviet Union.<sup>38</sup>

While Gray acknowledges that weather conditions at the Kola inlet may have necessitated certain enclosures to

---

<sup>37</sup>Sullivan, The Bitter Fruit of SALT, pp. 17-18.

<sup>38</sup>Behuncik, "Examining SALT Violations and the Problems of Verification," p. 16.

enable work to proceed, the practices described were at least as strategically convenient as they were reasonable.<sup>39</sup>

SLBMs were limited in SALT I only as a result of American insistence, because the Soviets held no clear numerical advantage in these systems as they did with ICBMs. They therefore delayed final agreement on SSBN/SLBM ceilings until the May 1972 Moscow summit from which Nixon would be virtually compelled to return home with an agreement. Although American intelligence had determined that the Soviets had only 42 modern SSBNs operational or under construction, the U.S. evidently did not discover that the Soviet claim to 48 had been an outright lie until 1978. Soviet SSBN construction yard covers aided in the deception. The dummy submarines -- prima facie evidence of deception -- were intended to do the same.<sup>40</sup> Orchestrating their grand "concession" -- that of including SLBMs and their carriers in SALT I at all -- to the hilt at the summit, the Soviets seduced American agreement to a Soviet SLBM force of 950 modern missile launchers by 1977 on some

---

<sup>39</sup>Gray, "SALT I Aftermath: Have the Soviets been Cheating?" p. 31.

<sup>40</sup>Mihalka, "Soviet Strategic Deception, 1955-1981," p. 77-78; and Sullivan, The Bitter Fruit of SALT, p. 17.

62 boats -- including older, but replaceable H class carriers. Yet to this day the Soviets have not dismantled the 24 Gulf class SSBNs as Brezhnev "promised" Kissinger would occur.<sup>41</sup> Although these sea based launchers count under SALT I's limits only if they carry modern SLBMs, they remain operational and fully capable of augmenting a Soviet attack. The final numbers resulting from the Soviet "concession" to negotiate SLBM launcher ceilings were therefore 1017 for the U.S.S.R. and 656 for the U.S.

#### Deception in SALT II

Striving to correct one of the loopholes that the Soviets had exploited in SALT I, SALT II did acknowledge that the SS-16 was tested "after 1970" and clearly drew the line on any further Soviet production, testing or deployment of the mobile ICBM:

During the term of the Treaty, the [USSR] will not produce, test, or deploy... [the] SS-16, a light ICBM first flight tested after 1970 and flight tested only with a single reentry vehicle; this...also means that the [USSR] will not produce the third stage of that missile, the reentry vehicle of that missile, or the appropriate device for targeting the reentry vehicle of that missile. (Common Understanding to paragraph 8, Article IV).

---

<sup>41</sup>Sullivan, The Bitter Fruit of SALT, p. 18.

Nevertheless, government personnel have reportedly now acknowledged that as many as 200 SS-16s are now operational. The most specific report of these acknowledgements has been by Evans and Novak:

The new consensus that close to 200 SS-16 ICBMs have been 'fully deployed' in the area of a Soviet test range called Plesetks, near Arkhangel, ends months -- perhaps even several years -- of disagreement in the government.... Now, evidence of actual deployment of the world's first mobile ICBM (a counterpart of the intermediate-range SS-20 with an extra rocket stage and a single one-megaton warhead) is incontrovertible. The dread 6000-nautical-mile missiles, housed in and fired from huge, wheeled vehicles capable of rapid movement, are concealed under elaborate camouflage.<sup>42</sup>

Although the Reagan Administration officially claims that the Soviets are in compliance with both SALT I and SALT II, even the mere existence of SS-16s would be a violation of both agreements' nonconcealment provisions, SALT II's limits on delivery vehicles, and SALT II's prohibition of the specific missile's development, testing, or deployment. Other than

---

<sup>42</sup>Rowland Evans and Robert Novak, Washington Post, April 5, 1982 as cited in "Soviets Violate SALT II," Human Events, April 17, 1982, p. 23. Reports of the SS-16 deployment are similarly noted by Henry Trewhitt, "Soviets Said to Deploy Long Range Missiles," The Baltimore Sun, April 6, 1982, p. 4; Jeffrey St. John, "Soviet Arms Violations Alleged," Washington Times, June 7, 1982, p. 7; William Beecher, "Soviet Missiles Stir Concern," Boston Globe, May 28, 1972, p. 15; and Daniel Southerland, "Are Soviets Violating SALT II Guidelines?" The Christian Science Monitor, May 12, 1982, p. 4.

unofficial press leaks by members of the Administration who have access to NTM's product, the government has provided no explanation of the SS-16 activities.

Nor has anyone yet refuted widespread reports that the Soviets are now testing two new ICBMs and encrypting 95 percent of the telemetry needed for verification of their compliance with SALT II -- even though the President has decreed that the U.S. would comply with the unratified Treaty only so long as the Soviets comply.<sup>43</sup> The encryption of telemetry in conjunction with missile tests was a particularly important aspect of the Treaty not only because, as discussed earlier,<sup>44</sup> telemetry encryption had plagued verification of SALT I, but also because the Carter Administration claimed to have strengthened SALT's verification provisions with the following Common

---

<sup>43</sup>The fact that the Soviets have "two new solid-propellant ICBMs...currently being developed" is acknowledged in a recent DoD accounting of Soviet strength. See Soviet Military Power, 2nd Ed, March, 1983 (Washington, D.C.: USGPO) p. 21. See also Michael Getler, "Soviet Encoding of Missile Data Assailed," Washington Post, Jan. 6, 1983, p. 7.

<sup>44</sup>SS-18 telemetry encryption is discussed with specific references in the introductory portion of Chapter Six. But see Clarence A. Robison, Jr. "Soviets Push Telemetry Bypass," Aviation Week and Space Technology, April 16, 1979, pp. 153-155. For references to early probes to SALT II's nonencryption provisions, see "Expanded Soviet Missile Encryption Threatens Verification," Defense Daily, June 4, 1980, p. 172.

Understanding:

Each party is free to use various methods of transmitting telemetric information during testing, including its encryption, except that, in accordance with [Article XV's non-concealment provision -- identical with SALT I's], neither party shall engage in deliberate denial of telemetric information, such as through the use of telemetry encryption, whenever such denial impedes verification of compliance with the provisions of the Treaty. (Second Common Understanding; Article XV; SALT II, emphasis added)

Elaborating on the meaning of this Understanding in his transmission of SALT II to the President, Secretary of State Cyrus Vance explained that during the Vienna summit

...the Soviets stated that there must be no encryption of information involving the parameters covered by the Treaty, that there was an understanding between the Parties on this issue and that if any misunderstandings arose, they could be considered in the Standing Consultative Commission.<sup>45</sup>

Furthermore, as Vance explained to the Senate Foreign Relations Committee:

For the first time, there is explicit agreement not to encrypt telemetric information -- that is to disguise the electronic signals which are sent from missile tests -- when doing so would impede verification of compliance with the provisions of the treaty. We would quickly know if the Soviets were encrypting relevant information. This would be a violation of the treaty.... Without SALT there would be

---

<sup>45</sup>SALT II Agreement, Vienna, June 18, 1979, Selected Documents No. 12B (Washington, D.C.: U.S. Department of State, Bureau of Public Affairs), p. 45.

AD-A135 439

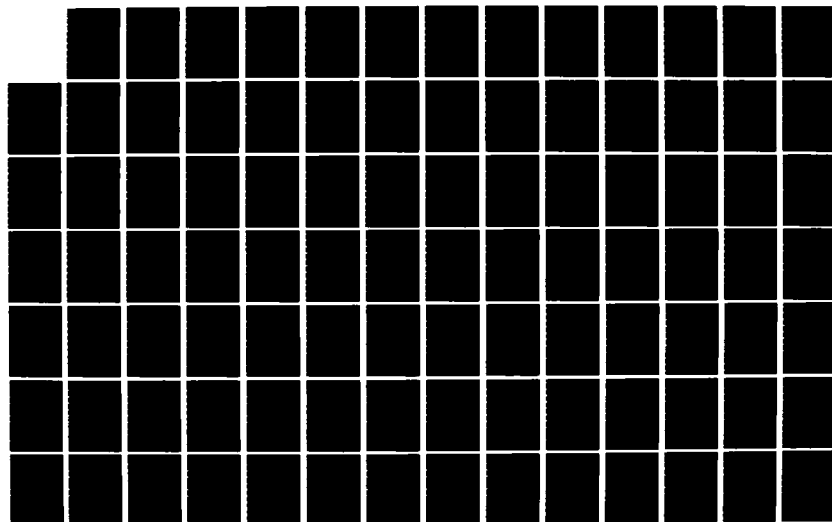
ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

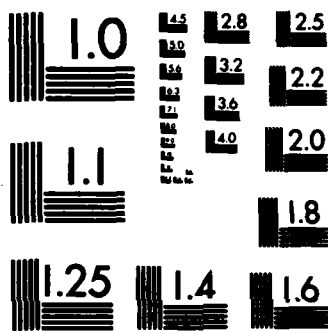
5/6

UNCLASSIFIED

F/G 5/4

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

nothing to prevent the Soviets from concealing their strategic programs. Thus the treaty's verification provisions have an independent value for our national security, quite apart from their role in enforcement of the treaty.<sup>46</sup>

What the Secretary of State did not say, of course, was that -- also for the first time -- there was explicit agreement that telemetric encryption of ICBM test data was permitted by Treaty. The only encryptions ruled out were those the Soviets agree to be both deliberate and related to "verification of compliance with the provisions of the treaty," -- now specifically understood to exclude five key parameters that the U.S. once considered essential to the definition of a new ICBM. One can be reasonably sure the Soviets insist today that 95 percent of the telemetric data related to the testing of their fifth generation of ICBMs is more closely associated with those five criteria than with the six general parameters to which they did agree. Yet if the data really is in unbreakable code, then the U.S. has no basis on which to claim entitlement to its clear transmission; if, on the other hand, the U.S. has broken the code and knows the data is essential to SALT

---

<sup>46</sup>U.S. Congress, Senate, Committee on Foreign Relations, The SALT II Treaty, Statement of Hon. Cyrus R. Vance, Secretary of State, July 9, 1979, 96th Congress, 1st Session, p. 88.

verification, then it would be foolish to yield that information to the Soviets simply to establish a violation. Even if the encrypted telemetry were decoded and found to be evidence of illegal testing, no intelligence expert on earth would use it as evidence of a treaty transgression, because not only would the violation remain in question but the asset would be compromised and the prohibited testing would continue. In short, the verification provisions of SALT II, like those of SALT I, constrain no one except the U.S. It is illusory to pretend that SALT has altered any more than the framework in which the Soviets exploit their societal closure. SALT legitimizes Soviet use of CCD far more than it controls its context or limits its use.

Additionally, even though SALT II constrains development of Soviet ICBMs to "one new type," the unratified treaty places no limits on the development of global range SLBMs. Since "canisterization" is a launcher technique that is common to both sea and land based Soviet missiles, there is really no limit whatsoever on new ICBM development -- one of the two being tested today, the SS-NX-20 (8300 Km range), is probably deemed legal by the Soviets in accordance with that loophole. Furthermore, since permitted research and development activities are specifically excluded

from CCD/encryption limitations, all related telemetry denials are perfectly permissible; but the U.S. cannot possibly ascertain that it is not a new ICBM and there is no basis even to "raise the issue" at the SCC.

Although it may seem redundant to say so, many of the reported cases of deception in SALT I and II were the result of American self-deception in addition to their clear manifestations of Soviet maskirovka. Self deception is the topic of the next section. The important conclusions to be reached from the evidence presented in this section are: that the presence of American monitoring did not deter the Soviets from cheating on arms control agreements; that verification provisions do not strengthen American monitoring ability beyond what it would be without the agreements; that in "confidence building" terms, the Soviets' attitude toward verification invalidates expectations associated with arms control's technical-legal "enablers"; and that from a Soviet standpoint the "generally accepted principles of international law" permit no more penetration of the closed society with than without arms control.

### 3. The Open Society: Self Deception Continues

It is generally understood in international law that when one state endeavors, clandestinely and

intentionally, to observe activities that another state prefers to keep secret, a case of espionage is underway. As discussed throughout this project, the Soviets have long negotiated with the U.S. as if their waiver of this generally accepted principle would be at times and places of their choosing, by means to which they have specifically agreed, and at a predetermined price that advances their political objectives. It is therefore not the act of Soviet concealment or deception, but any act to the contrary, that should be considered extraordinary. From the outset of post-war security negotiations, compliance monitoring provisions -- in whatever form -- have been secondary matters of negotiation for the Soviets, after they have exacted an agreement the substance of which is favorable to them. In SALT, the Soviets have agreed only to those requirements and prohibitions that were inescapable from American monitoring in the first place, irrelevant because reciprocal American compliance secured a Soviet advantage, or so flimsily worded that clandestine circumvention would be impossible to prove even if discovered. Yet no one in the U.S.S.R. ever said it would be different. The two SALT Agreements were produced by American presidents who needed agreements, and sold by arms control zealots

who wanted desperately for the Soviets to feel equally compelled. It was Americans who had theorized that the legalities of an agreement would broaden their license to monitor; it was Americans who had lauded the pervasive purview of NTM; it was Americans who had boasted of their unilateral ability to "verify" Soviet compliance.

Although the Soviets have wasted few opportunities to tell Americans what they "want to believe," it has been Americans who have believed it. This practice has taken the form of personal unwritten assurances from various Soviet leaders, misleading assertions by Soviet negotiators, "nond denial" approvals of American understandings of treaty implications and data bases, and outright fabrications of truth by the Soviets. Yet Americans march back to the negotiating table again and again under the same rules and frameworks and often reach agreements that employ the same words. American government officials not only fail to impose the stated consequences of noncompliance with their own interpretations, but often become the mouthpieces of Soviet interpretations to the contrary. The Soviets make a strategic asset of their closed society through ambiguous provisions, self serving interpretations, and violations of agreements; but the U.S. actively

participates in each of these areas and thereby exacerbates the asymmetric diplomacy of arms control well beyond what the Soviets could achieve on their own.

#### Self Deception in SALT I

Article I of the Interim Agreement states clearly enough that:

The Parties undertake not to start construction of additional fixed, land based intercontinental ballistic missile (ICBM) launchers after July 1, 1972.

Although negotiators for the U.S.S.R. had never agreed with their American counterparts regarding the number of silos to which they were frozen by Article I, several Administration witnesses testified during ratification hearings that this meant 1618 launchers for the U.S.S.R. and 1054 for the U.S. Soviet "agreement" with these numbers, however, was conveyed only by silence and nondenial when the figures were advanced by the U.S. In 1973, U.S. "close look" satellites observed extensive new excavations along the trans-Siberian railway in Soviet Asia<sup>47</sup> that looked very much like conventional Soviet ICBM complexes.<sup>48</sup>

---

<sup>47</sup>Nicholas Daniloff, "How We Spy on the Soviets," The Washington Post Magazine, Dec. 9, 1979, p. 25.

<sup>48</sup>Behuncik, "Examining SALT Violations and the Problems of Verification," p. 4.

According to Nicholas Daniloff, an American analyst spotted the excavations and promptly consulted his superior, who suggested waiting for further evidence before raising the issue with higher authorities. Additional corroboration was delayed, however, by clouds that masked the new missile sites for several weeks. When the clouds cleared, silo excavation was "undeniable," according to Daniloff, because "thousands of cubic yards of earth had been removed." The CIA then estimated that 110 new silos were under construction. Informed of this evidence, Henry Kissinger ordered a "hold" on related photographs -- which meant that evidence was not to be published in periodic interagency "compliance reports" and that no related discussions were to take place outside of the center that produced them.<sup>49</sup>

There was evidently no established procedure whereby such evidence was converted into policy; no formal mechanism to assure systematic decision-making existed. Not even informal consultation among the key personalities seems to have occurred. Yet while Kissinger consulted with his Soviet counterparts regarding the new silos, intelligence estimates were updated to reflect between 150 and 200 launcher

---

<sup>49</sup>Daniloff, "How We Spy on the Soviets," p. 28.

facilities.<sup>50</sup> As the unstructured decision-making process continued, a battle began quietly festering within the bureaucracy over the appropriate response to the infraction. Lower level officials, unaware of Kissinger's private talks with Soviet Ambassador Anatoly Dobrynin, became concerned that either a White House "coverup" or just outright incompetence was in progress. In the meantime, the intelligence community gathered further evidence of a clear violation: the new structures were cylindrical like ICBM launchers; they had "blow-away" type doors like ICBM launchers;<sup>51</sup> and they were equipped with launcher-type suspension equipment like ICBM launchers.<sup>52</sup> In the interim, Kissinger had received assurances (from Dobrynin) that

---

<sup>50</sup>Gray, "SALT I Aftermath: Have the Soviets been Cheating?" p. 31; and Van Cleave, "SALT on the Eagle's Tail," p. 51. For further discussion of Kissinger's inclination to "hold" compliance related information from other key players in the verification community, see the findings of the House Select Committee on Intelligence (Pike Committee), established by House Resolution 591, July 17, 1975. Although most of the Pike reports remain classified, portions of it have been reprinted in the public domain. See for example "The CIA Report the President Doesn't Want You to Read: The Pike Papers," Village Voice, Feb 16, 1976, p. 92. See also Elmo R. Zumwalt, Jr., On Watch (Quadrangle: The New York Times Book Co., 1976), pp. 482-489.

<sup>51</sup>Van Cleave, "SALT on the Eagle's Tail," p. 51.

<sup>52</sup>Gray, "SALT I Aftermath: Have the Soviets Been Cheating?" p. 31.

the silos were intended for use as command and control sites. Although they appeared identical to missile launchers, the Soviets had responded to whatever Kissinger had said to them with assurances that U.S. reconnaissance satellites would soon see a difference. Eventually, the CIA reported the presence of electrical cables that could presumably transmit launch commands to surrounding missile silos. Kissinger thereby determined that, since the new silos were also capable of command and control, in addition to the launching of missiles, they were intended as launch control facilities.<sup>53</sup>

As the State Department reflected on the "misunderstanding" some years later:

In 1973 the United States determined that additional silos of a different design were under construction at a number of launch sites. If these had been intended to contain ICBM launchers, they would have constituted a violation of Article I of the Interim Agreement.<sup>54</sup>

Although, as Gray has reported, the "former" command and control facilities had not been dismantled, and

---

<sup>53</sup>U.S. Congress, Senate, Hearing Before the Subcommittee on Arms Control, Committee on Armed Services, Soviet Compliance with Certain Provisions of the 1972 SALT I Agreements, Testimony of Hon James R. Schlesinger, Secretary of Defense, March 6, 1975, 94th Congress, 1st Session, p. 3.

<sup>54</sup>"Compliance with SALT I Agreements," p. 4.

although everyone agreed that -- whatever else they were -- these "3x" silos constituted "fixed, land based ICBM launchers" constructed after July 1, 1972, the hardened facilities were said to comply with SALT I on the basis of stated Soviet intentions to use them for communications. Both Gray and Behuncik have suggested that it would be "unlikely" or "implausible" for undetected missiles to be installed in the new silos. But neither addresses the related fact that since these silos are nonviolations they can also be legally concealed, or that, since missile production is not limited, and since nobody knows how many canisterized missiles the Soviets have or where they are located, nearby storage of ICBMs (legally concealed and canisterized) could provide a reliable reserve force in the event of war.

The precedent according to which some violations can be tolerated on the basis of after-the-fact Soviet statements of intended use, while new to the American compliance policies of 1973, was not a new argument. The reader will recall that the importance of intentions over capabilities was a central theme of the arguments advanced by legal "bridge" theorists as discussed in Chapter Five. According to Falk and Barnet the mere assessment of capabilities would always stand in the way

of trust; and since the purpose of verification should be to provide "reassurance as to intentions" rather than "verifying the absence of weapons," the assumption of a high Soviet intention to cheat should be abandoned.<sup>55</sup> Since these idealists considered the strategic utility of clandestine violations remote, trust in Soviet good intentions was easily justified to compensate for any monitoring system's shortcomings. But in the case of the 3x silos, the monitoring system had performed perfectly well, and the legal provision was uncommonly clear. The U.S. was simply caught up in a cops and robbers dilemma. As Oppenheimer had first argued, intentions -- once they become the issue of debate -- are impossible to prove. In the absence of proof, the benefit of the doubt (i.e. trust) must logically be granted to the accused -- an absolute paradigm of the Western legal tradition.

The acceptance of Soviet arguments about variance between their capabilities and their intentions would become an important addition to the elasticity of American compliance policy throughout SALT's

---

<sup>55</sup>Cited passages are from Richard J. Barnet, "Inspection: Shadow and Substance," in Richard A. Falk and Richard J. Barnet, Eds., Security in Disarmament (Princeton: Princeton University Press, 1965), p. 32. See related discussion in Chapter Five, Section 2 (pp. 236-238) of this paper.

implementation. The U.S. accepted the testing of SA-5 radars "in an ABM mode" on the basis of a Soviet explanation that they intended to use the radars "in a range instrumentation mode," which was permitted.<sup>56</sup> Similarly, new radars installed at the Sary Shagan ABM test range were judged not to be "mobile" as prohibited by Article V, but merely "transportable." Behuncik suggests that these phased-array radars -- equipped for electronic and mechanical steering -- can be erected much more rapidly than earlier versions and are adaptable to a wide variety of concrete basing structures.<sup>57</sup> The State Department has argued that the new radars are not mobile in the sense of being able to be moved rapidly or hidden -- that it would take months to ready an operational site. Regardless, the moveable systems scorn the intent of the agreement in light of the nationwide air defense system with which their testing has been associated. The Soviet notion of nuclear war presupposes a prior period of tensions -- during which they would obviously feel no obligation to honor a treaty.<sup>58</sup> American presuppositions about

---

<sup>56</sup>"Compliance with SALT I Agreements," p. 4.

<sup>57</sup>Behuncik, "Examining SALT Violations and the Problem of Verification," p. 13.

<sup>58</sup>Mihalka, "Soviet Strategic Deception," p. 84.

Soviet preparations for nuclear war, however, as Barnet and Falk argue, would invalidate all of arms control's premises, and in these cases Soviet intentions merely to "test" rather than rapidly to "deploy" the moveable radars therefore became the determinant for American compliance policy.

In each of these cases, the U.S. gave higher priority to the Soviets' stated intentions than to the equally plausible increase in Soviet warfighting capability they also represented. American verifiers of the ABM Treaty must have thought the Soviets "intended" to do a great deal of benign ABM testing, because the Soviets also deployed a new ABM radar at Kamchatka Peninsula in violation of Article III. But the new radar was said to comply with Article IV which permitted new ABM systems when their purpose was "development or testing...within current or additionally agreed test ranges." Although the U.S had specified in Common Understanding C that the only Soviet ABM test range was at Sary Shagan, the Soviet response had been merely a nondenial: "the reference in Article IV to 'additionally agreed' test ranges [is] sufficiently clear,...national means [permit] identifying current test ranges." That the U.S. was willing to agree to limitations on ABM deployment while

permitting ABMs at test ranges was one thing, but to do so when the Soviets refused to identify their test ranges in advance was another. Nevertheless, when the Soviets deployed a new ABM radar at Kamchatka, the U.S. agreed to call Kamchatka a test range.

Thus the Soviet intent merely to "test" the new ABM radar was again the determining criterion. Furthermore, Jasper Welch has offered the Kamchatka incident as evidence of how the SCC process can serve American interests. According to this argument, discussions at the SCC enlightened the U.S. as follows:

...an action initiated by the United States about a possible Soviet ABM radar on the Kamchatka Peninsula started discussions which eventually resulted in an identification by the Soviets of all their ABM test ranges. What had not been obtained during SALT I negotiations was finally entered into the official negotiating record through the SCC forum.<sup>59</sup>

Welch's convoluted logic thus argues that Soviet violation of Article III not only did not bring the Treaty's validity into question, but it gave value to an otherwise meaningless Article IV as well, because now the Soviets were willing to reveal a "truth" which they had no incentive to share when negotiating an

---

<sup>59</sup>Jasper A. Welch, "Verification," Chapter 9 of Robert L. Pfaltzgraff, Jr., Uri Ra'anan, and Warren Milberg, Eds., Intelligence Policy and National Security (Hamden: Archon Books, 1981), p. 135.

international treaty. Furthermore, the discussions necessitated by the Soviet violation provided evidence of the SCC's value. What the U.S. had "learned" was that its intelligence had been incorrect about Sary Shagan being the only ABM test range; now the Americans "knew" there were two such ranges, one at Sary Shagan and one at Kamchatka. Amrom Katz, Director of ACDA's Verification Bureau at the time, recalls the learning experience somewhat differently:

...we found an ABM radar on the Kamchatka Peninsula and we said: 'Hey, what about that?' They said: 'If it pleases you to regard that as an ABM range, so be it.' We wrote to them and said, in effect (I am paraphrasing this, obviously; the language is much longer and more convoluted): 'If you will only say that that's an ABM test range, we'll go away happy.' So they answered: 'If you're willing to believe that, go ahead and believe it. It is up to you.' This is not quite a verbatim account but that, to my reading, essentially and fairly discusses what happened.<sup>60</sup>

The tendency toward self-deception takes a variety of forms in the U.S. Albert Wohlstetter's work makes a convincing case that CIA estimators tend to shape their data toward preconceived theories about Soviet strategy. Pressures toward conformity and consensus -- resulting, for example, from popular reactions to the

---

<sup>60</sup>Katz, "Verification and SALT, A Different Line of Insight," p. 145.

"missile-gap" controversy of the late 1950s -- often override hostile evidence.<sup>61</sup> Furthermore, such preconceptions are often buttressed by Soviet ability to penetrate American intelligence agencies sufficiently to "tell them what they want to believe." Epstein reports, for example, that the Soviets misled the CIA into believing that their large missiles lacked the guidance accuracy necessary to threaten American ICBM survivability until better methods of crater and telemetry analysis were developed in the 1970's. Even then, reports Epstein, Soviet maskirovka skills included the ability to distort telemetry data to achieve "systematic bias" that mimicked American preconceptions of Soviet technological backwardness. Most career intelligence officers who tried to ferret out evidence of such deception found their careers at an end, according to Epstein.<sup>62</sup>

Richard Perle finds exactly these same preconceptions at work in the formulation of American arms-control negotiating positions and compliance

---

<sup>61</sup>Wohlstetter's works are cited more thoroughly in Chapter Two and this conclusion is common to most of them. See also the related discussion by Edward J. Epstein, "Disinformation: Or Why the CIA Cannot Verify an Arms-Control Agreement," Commentary, July 15, 1982, p. 26.

<sup>62</sup>Epstein, "Disinformation: Or Why the CIA Cannot Verify an Arms-Control Agreement," pp. 27-28.

policies. According to Perle, the Soviets have catered to American willingness to believe, despite evidence to the contrary, that like the U.S., they wish to constrain strategic arms competition to mutually enhancing levels. Thus, the Soviets readily agreed to the provision in SALT I that spells out the percentage increase by which silos can be enlarged. But when the U.S. sought to define upper limits on the size of the missile that could be based in enlarged silos, the Soviets were less forthcoming. Nevertheless, in the course of negotiations American negotiators persuaded themselves that it was for idiosyncratic reasons alone -- having to do largely with Russian traditions of secretiveness -- that the Soviets would not agree to precise definitions of light and heavy ICBMs. Under such preconceptions, the logic of resting American ICBM survivability on the legal strength of a Unilateral Statement made a good deal of sense. The logic was encouraged by the Soviets, says Perle, but the real culprit was not them alone:

The willingness to regard the Soviet refusal to agree to our definition as a mere quirk of Soviet negotiating style rather than a deliberate device for eventual circumvention of the agreement was greatly facilitated by

the ease with which we indulged in unfounded optimism and self-deception.<sup>63</sup>

### Self Deception in SALT II

Additional examples are both more current and more convincing. After the 1974 Vladivostok accord established equal delivery vehicle ceilings of 2400 each as a guideline to SALT II, negotiations faltered for the next five years over what delivery vehicles to include within that ceiling. The Soviets insisted that all cruise missiles should be counted under these ceilings if their "range" exceeded 600 kilometers, but that their own Backfire bomber should not be included because it lacked unrefueled round-trip "radius-of-action" between the U.S. and U.S.S.R. Incredibly, the Soviet position had defenders in the Pentagon from the outset. As Strobe Talbott has described the argument:

The uniformed military has tended to the position that the Backfire should be treated by SALT in terms of what it could do in the future. The ranking civilian authorities in the Department of Defense have tended to the position that Backfire should be treated in terms of what it seems intended to do...<sup>64</sup>

---

<sup>63</sup>Richard N. Perle, "SALT II: Who is Deceiving Whom?" in Pfaltzgraff, Ra'anan, and Milberg, Eds., Intelligence Policy and National Security, p. 149.

<sup>64</sup>Strobe Talbott, Endgame, The Inside Story of SALT II (New York: Harper & Row, Publishers, 1979), p. 34. First emphasis his, second mine.

The "civilians" to whom Talbott refers would win this argument as the final "compromise" on the Backfire-Cruise Missile controversy was achieved by agreeing to count cruise missiles among agreed ceilings but not to count Backfire. The route to that decision would involve several classic examples of self-deception. According to the Senate Armed Services Committee's December 1979 Report on SALT II, "the decision not to count Backfire was taken early in the Current Administration in the belief that U.S. insistence on counting Backfire would impede movement toward a treaty and would lead eventually to an inevitable, and embarrassing U.S. acquiescence."<sup>65</sup> With this preconception established as its policy guideline, the Carter Administration would hear nothing that in any way highlighted the Backfire as the intercontinental threat that it was. In 1975, responding to an American request for clarification of the Backfire's capability, the Soviets had submitted data on the aircraft's range which the Ford Administration had rejected as too low -- in comparison with its own intelligence estimates. In 1978, when the Soviets submitted new figures on Backfire's range, the

---

<sup>65</sup>The Military Implications of the Proposed SALT II Agreement, p. 14.

Carter Administration rejected them as too high -- in comparison with the established definition of an intercontinental bomber. Informed that their 1978 data defined Backfire as an intercontinental range bomber, the Soviets withdrew that profile and subsequently refused to discuss the aircraft's capability. Thereafter, discussions between the two sides focused on "assurances" regarding Backfire's intended mission.<sup>66</sup> Edward Rowny, JCS representative to the SALT II negotiations, testified that the military regarded such assurances as "worthless or irrelevant," and that American intelligence had consistently assessed the Backfire as an intercontinental range delivery vehicle.<sup>67</sup> Indeed the State Department's own Glossary to the SALT II Agreement defines Backfire as having intercontinental capability. Senator Percy, Chairman of the Senate Foreign Relations Committee, acknowledged in 1977 that there was "general agreement" on Backfire's potential but "honest and strongly felt

---

<sup>66</sup>U.S. Congress, Senate, Hearings Before the Committee on Armed Services, Military Implications of SALT II, Part 3, Testimony of General Edward Rowny - Resumed Oct. 11, 1979, 96<sup>th</sup> Congress, 1<sup>st</sup> Session, pp. 1241-1242.

<sup>67</sup>Ibid.

disagreement on Soviet intentions...<sup>68</sup>

It is also widely agreed that the Backfire is the finest intercontinental bomber in the Soviet arsenal. It has better range than many of the Soviet and American bombers that are counted in SALT II,<sup>69</sup> and in the production levels to which the U.S. agreed in SALT II it could add 4 million pounds of payload -- a one-third increase -- to the already formidable Soviet threat to U.S. territory.<sup>70</sup> Backfire is the only delivery vehicle in either inventory whose intercontinental potential is measured by "radius-of-action" -- the capacity to conduct a round trip mission without being refueled, instead of "range" -- the capacity for one-way missions. Like any bomber it can operate with greater flexibility when attacking targets that are closer-in, such as those in Europe, but in the case of Backfire this was judged to be determinant in defining its strategic relevance. As late as 1977, Harold Brown was acknowledging that, even

---

<sup>68</sup>U.S. Congress, Senate, Hearings Before the Committee on Foreign Relations, United States/Soviet Strategic Options, Testimony of Arms Control and Disarmament Agency Director Fred C. Ikle, 95th Congress, 1st Session, 1977, pp. 245-246.

<sup>69</sup>Sullivan, The Bitter Fruit of SALT, p. 29.

<sup>70</sup>The Military Implications of the Proposed SALT II Agreement, p. 15.

by the "radius" criterion, Backfire was "sufficient for some strategic missions,"<sup>71</sup> but from its ill-fated Comprehensive Proposal through the signing of SALT II, the Carter Administration was committed to "getting an agreement" even if it required the acceptance of loose, ambiguous "assurances" from the Soviets regarding Backfire's "intended" use.

The route to assurances that the Soviets finally did provide was a circuitous one indeed. After his Comprehensive Proposal was rejected by the Soviets in March 1977, Carter himself insisted that

We are not prepared to accept a unilateral prohibition against the development or deployment of the cruise missile absent some equivalent response from the Soviet Union, including the Backfire bomber.<sup>72</sup>

But, according to Gromyko, the Soviet response regarding Backfire had long since been provided:

Leonid Brezhnev personally explained to President Ford...in Helsinki [during the first European Security Conference, 30 July to 1 Aug 1975] and later to President Carter that it concerns a medium-range bomber and not a strategic bomber.... We note that this

---

<sup>71</sup>"Remarks of Secretary of Defense Harold Brown at the University of Rochester" (New York), April 13, 1977. Office of the Assistant Secretary of Defense (Public Affairs), News Release No 161-77, April 13, 1977.

<sup>72</sup>"Remarks by President Jimmy Carter," Weekly Compilation of Presidential Documents, April 4, 1977, pp. 469-473.

question is being artificially introduced to complicate the situation along the road of concluding an agreement....<sup>73</sup>

And within two weeks of Gromyko's remarks at the end of March, in conjunction with the harsh Soviet rejection of Carter's Comprehensive Proposal, Harold Brown indicated American agreement "that the Backfire is not a strategic weapon"; the U.S. would simply require "verifiable assurances that such will in fact be the case."<sup>74</sup> The Comprehensive Proposal itself had excluded Backfire, of course, but in conjunction with sharp limits on heavy ICBMs, MIRVed ICBMs, and basing and production limits on Backfire. Soviet rejection of the proposal sent the Carter Administration back to the drawing-board but the Backfire exclusion would be one of the few 1977 proposals that would not change.

Furthermore, American demands over the next two years regarding limitations on basing and training exercises for the Backfire would be rejected by the Soviets as SALT II took shape.<sup>75</sup> Carter would in fact

---

<sup>73</sup>Gromyko Assesses the Moscow Talks, 31 March 1977; Remarks to the Press by Foreign Minister Andrei Gromyko, in Roger P. Labrie, Ed., SALT Hand Book (Washington, D.C.: American Enterprise Institute, 1980), p. 436.

<sup>74</sup>"Remarks of Secretary of Defense Brown at the University of Rochester."

<sup>75</sup>Clarence A. Robinson, Jr., "SALT Stance Allows New Missiles, Aviation Week and Space Technology, April 24, 1978, p. 16.

depart for the Moscow summit with his long sought "assurances" on Backfire still unresolved. Reminiscent of Nixon's eleventh hour finalization of key SALT I issues, Carter's meeting with Brezhnev would involve false statements by the Soviet leader denying Backfire's intercontinental range and refueling capabilities,<sup>76</sup> an unsigned note from Brezhnev,<sup>77</sup> and verbal assurances that the aircraft "was currently being produced at a rate of thirty per year."<sup>78</sup> Brezhnev's unsigned note would be appended to the Treaty in the form of a "Soviet Backfire Statement" signed by Vance. It provided "assurances" to the effect that "the Soviet side...does not intend to give this airplane the capability of operating at intercontinental distances...[or] increase the radius of action of this airplane...[or] give it such capability in any other manner, including by in-flight refueling...[or] increase the production rate of this

---

<sup>76</sup>David S. Sullivan, "Lessons Learned from SALT I and II: New Objectives for SALT III," p. 368.

<sup>77</sup>Military Implications of SALT II, Part 3, Testimony by General Edward Rowny - Resumed, p. 1240. According to Rowny, the statement was "not even initialed by Brezhnev and is obviously...not legally binding."

<sup>78</sup>The Vienna Summit, June 1979, in Labrie, Ed., The SALT Handbook, p. 417.

airplane as compared to the present rate."<sup>79</sup> SALT II contains no designation whatsoever of the range and payload of the Backfire, nor any generic definition of a heavy bomber. Furthermore, Soviet claims, as spelled out in Brezhnev's unsigned note, were at complete variance with U.S. intelligence -- leaving the U.S. in no position to dispute a Soviet claim that the next new bomber is "non-heavy" as well.

It was as if the U.S. had learned nothing from the SS-19 experience in SALT I. A contentious but critical issue had again been placed outside the treaty for the purpose of conferring quasi-legality on conflicting interpretations. Even the alleged restrictions on Backfire are essentially meaningless from the standpoint of its military effectiveness. Nevertheless, an image would thereafter be confused with a reality as self-deception perpetuated the myth that American bombers (i.e. the B-52) were quantitatively and qualitatively superior to Soviet "bombers" (i.e. the Bison and Bear), all of which require mid-air refueling to perform intercontinental missions.<sup>80</sup>

---

<sup>79</sup>"Soviet Backfire Statement," The SALT II Agreement, Selected Documents No 12B, p. 58.

<sup>80</sup>Daniel O. Graham, Shall America Be Defended? (New Rochelle: Arlington House, 1979), pp. 212-213.

Finally, regarding verification, how could the U.S. ever "prove" a range or payload increase when the existing figures were subject to debate in the U.S., when Soviet claims about them were already known to be false, and when the U.S. had already bent over backwards to fabricate a case for calling it "non-strategic?"

The Carter Administration answered such questions about SALT II's verification with the following three principal arguments:

1. Soviet planners would be expected to make careful conservative assumptions regarding U.S. verification capabilities. For example, a slightly less than 50 per cent chance of detection, which is considered 'low confidence' in monitoring capability to the U.S., would probably be considered as 'high risk' to a Soviet planner contemplating cheating. Given U.S. hedges and our greater industrial and technological base, the Soviets would not lightly undertake the risk and the attendant danger of U.S. abrogation.<sup>81</sup>

2. With this SALT II treaty, that vital information will be much more accessible to us. The agreement specifically forbids, for the first time, interference with the systems used for monitoring compliance and prohibits any deliberate concealment that would impede verification. Any such concealment activity would itself be detectable, and a violation of this part of the agreement would be so

---

<sup>81</sup>"Carter Administration Report on Verification of the Proposed SALT II Agreement," Submitted by ACDA Director Paul C. Warnke, 23 Feb 1978, to the U.S. Senate, Committee on Foreign Relations, in Labrie, Ed., SALT Handbook, p. 541.

serious as to give us grounds to cancel the treaty itself.<sup>82</sup>

3. In sum, although the possibility of some undetected cheating in certain areas exists, such cheating would not alter the strategic balance in view of U.S. programs. However, any cheating on a scale large enough to affect the strategic balance would be discovered in time to make an appropriate response. For these reasons...we believe that the SALT II agreement, taken as a whole, is adequately verifiable.<sup>83</sup>

These arguments must be understood in the context of two accompanying assumptions that are implicit in each of them. First, as the connections among emphasized passages suggest, there is an inherent relationship understood to exist among "monitoring," the "detection of cheating," and a "response" of abrogation or discontinued American compliance. Second, the very fact of SALT II's existence, along with numerous expressions of official policy, manifests the assumption of SALT I's "adequate compliance."

In conclusion, the American penchant for self-deception complicates the verification problem well beyond those aspects commonly addressed from

---

<sup>82</sup>"Remarks of President Jimmy Carter before the Annual Convention of the American Newspaper Publishers Association," New York, April 25, 1979. Weekly Compilation of Presidential Documents, April 30, 1979, p. 667.

<sup>83</sup>"Carter Administration Report on Verification of the Proposed SALT II Agreement," p. 542.

technical or legal standpoints. As discussed throughout this project, the identification of a Soviet violation or the "verification of noncompliance" involves far more than a simple "monitor-detect-indict-abrogate" sequence. After an administration has staked its vision of the future on the assumption that a treaty -- in and of itself -- is in the political interests of the U.S., any acknowledgement of its "violation" would amount to political failure on an historic scale. The enduring efficacy of a negotiated treaty -- based on continuing confirmation of Soviet compliance -- is therefore a vested interest of everyone associated with that treaty's existence. Completely aside from problems of ambiguity and proof -- issues that will be addressed in Chapter Eight -- formidable political forces thus tie Soviet compliance directly to the self interest of a sitting American government. Proof of Soviet noncompliance would very often be more threatening to domestic political interests than to the Soviets themselves. Self deception is therefore a built-in mechanism when the U.S. negotiates security agreements with the Soviets; and as cases in this chapter demonstrate, Americans will normally be more imaginative than their Russian counterparts in justifying violations.

Furthermore, if it is a treaty "as a whole" that is "adequately verifiable," then individual cases of noncompliance are specifically tolerable. In this sense the SALT I compliance adjudication process is instructive not simply because it was so thoroughly politicized, but also because the criteria according to which compliance was ascertained changed from one case to another. One apparent violation can be dismissed as inadvertent behavior, another as inconsequential because it was discontinued or was not "strategically significant" in the first place, and still others because of revised American judgments as to what an agreement entails. In this manner optimism over the validity of an agreement, a process, and its technical-legal enablers, is preserved. At the level of government experts, whose fates are tied to the validation of these assumptions, such tenacious optimism can only be understood as self-deception -- a sort of Orwellian "doublethink," in which "mental-cheating" persuades one of a needed truth's validity while "former truths" are dumped into the "memory hole."<sup>84</sup> As Richard Perle has concluded:

---

<sup>84</sup>George Orwell, 1984 (Chicago: New American Library, Inc., 1961). These terms are central concepts throughout the novel.

This in fact is the inevitable and instinctive reaction of a government that has embarked upon a policy of seeking to achieve accommodation with the Soviet Union through negotiated arms control treaties. The stakes are simply too high to find the Soviets in violation...<sup>85</sup>

Of particular importance in this regard is the relationship that seems to exist between "adequate compliance," on the one hand, and how one views "adequate deterrence" on the other. It is only in this context that the notion of "strategic significance," and hence "adequate verifiability," has meaning. This is why it was so alarming to many when Jimmy Carter spelled out the following understanding of deterrence in his 1979 State of the Union Address:

The American nuclear deterrent will remain strong after SALT II. For example, just one of our relatively invulnerable Poseidon submarines -- comprising less than 2 percent of our total nuclear force of submarines, aircraft, and land-based missiles -- carries enough warheads to destroy every large and medium-sized city in the Soviet Union. Our deterrent is overwhelming, and I will sign no agreement unless our deterrent force will remain overwhelming.<sup>86</sup>

---

<sup>85</sup>Richard N. Perle, "What is Adequate Verification?" Gordon J. Humphrey, et. al., SALT II and American Security (Cambridge: Institute for Foreign Policy, Oct 1980), pp. 53-63.

<sup>86</sup>"Excerpts from President Carter's State of the Union Message," Facts on File Yearbook (New York: Facts on File, Inc., 1980), p. 47.

The technically incorrect premise from which Carter derived his understanding of "overwhelming" deterrence was roundly criticized in its own right.<sup>87</sup> But the statement was particularly alarming because it was made just prior to the Administration's presentation of SALT II to the U.S. Senate. How would Carter view a Soviet circumvention of that agreement, for example, if the strategic significance of the activity in question were measured against the deterrent power of a single Poseidon SSBN?

Carter's comprehension of adequate verifiability was further called into question throughout the debate over SALT II's ratification. A Senate Select Committee on Intelligence report on the capabilities of the U.S. to monitor the SALT II Treaty, for example, was issued less than a year after Carter's State of the Union comments. The unclassified summary of the Committee's Report concluded that

...under current Soviet practices, most  
counting provisions can be monitored with

---

<sup>87</sup>See Colin S. Gray, "Nuclear Strategy: The Case for a Theory of Victory," International Security, 4 (Summer, 1979), p. 55. Gray notes that such Presidential language is at great variance with official targeting policies that are designed to avoid the genocidal-type attack implied by Carter. Furthermore, notes Gray, "The President neglected to mention that although 40 Kt warheads could destroy a lot of buildings, it was not obvious that one Poseidon SSBN could accomplish anything very useful by way of forwarding the accomplishment of U.S. war aims."

high or high-moderate confidence.... There are some provisions of the Treaty which can be monitored with only a low level of confidence.... The Committee also finds that the present capabilities of the national reconnaissance system could be degraded by the use of changed practices on the part of the Soviet Union and through concealment and deception.<sup>88</sup>

Additionally, in a footnote that was intended to elaborate on these conclusions, the Committee acknowledged that

The terms "high," "high-moderate," and "low" refer to the monitoring uncertainties (in terms of quantitative measures or probabilities of detection) and do not suggest the military significance of the resulting monitoring uncertainties.<sup>89</sup>

If some of SALT II's monitoring requirements could only be performed with "low" or "high-moderate" confidence, if the relative military significance of these requirements could not be judged by the Senate Intelligence committee, and if the Administration's standard of "overwhelming" deterrence were therefore to determine the military significance of such questions, then an enormously malleable compliance policy would be

---

<sup>88</sup>Principal Findings by the Senate Select Committee on Intelligence on the Capabilities of the United States to Monitor the SALT II Treaty, issued Oct 5, 1979, included as Appendix to William C. Potter, ed., Verification and SALT: The Challenge of Strategic Deception (Boulder: Westview Press, 1980), pp. 240-241. Emphasis mine.

<sup>89</sup>Ibid., p. 241. Emphasis mine.

approved along with Senate ratification of SALT II. In short, the Treaty was a set-up for continued self-deception on the part of those whose political futures were tied to its efficacy.

In this sense it is not at all inaccurate to call SALT II "adequately verifiable." An adequately verifiable agreement is one with enough latitude in its provisions to permit a wide ranging definition of compliance. Noncompliance must be sufficiently detectable to license discussion at the SCC, perhaps, but not so clearly defined as to disallow specific Soviet activities that are likely to take place anyway. Sufficient flexibility to rationalize such activities as cases of compliance is preserved in adequately verifiable agreements, because they are drafted in a manner that effectively rules out their violation. SALT II is adequately verifiable, just as SALT I was adequately verifiable, because both of them permit the Soviets to do what they would have done without an agreement, and because both permit the U.S. to make a case for those activities' compliance. Adequate verifiability, therefore, has as much to do with a compliance policy as with technical and legal criteria, and very little to do with "detectability" per se. The passionate determination of Americans to

perpetuate a process, despite a paucity of evidence that it constrains Soviet power, virtually necessitates the politicization of all compliance questions. The consequences of such an approach to national security, however, are costly. In the first place one is assured that any question regarding continuation of the regime will be answered by appeals to expediency rather than to the pure logic of the question. Secondly, the same process preserving ratchet effect that ushered bridge theories into the SALT era will preserve the process through arms control's implementation. And finally, subsequent approaches to negotiated national security will move "forward" on the basis of SALT implementation's "success."

## CHAPTER VIII

### THE ART AND SCIENCE OF COMPLIANCE MANAGEMENT

The moment the Soviets deployed their SS-19s, the great post-war experiment with negotiated security had failed demonstrably. That the U.S. would nevertheless conjure ways to accommodate the new heavy missiles in the context of its compliance policy represented the victory of a belief system over objectivity. Thereafter, an intellectual lulling process would take place as a nation of lawyers focused its attention on the fine points of contractual language instead of on an emergent security threat that defied the very core of arms control theory. In 1979 the U.S. would seek to codify both the imbalanced power relationship that had come about, and the lulling mechanisms that had permitted that relationship, as SALT II went before the Senate. Furthermore, the President would proclaim that any failure to ratify the Treaty would be "a radical turning point away from America's long-term policy of

seeking peace."<sup>1</sup> In the final analysis, said Carter, the U.S. faced a "moral" decision. According to this logic, it would have been immoral for the U.S. to identify Soviet SALT violations for what they were if to do so would in any way sidetrack the continuation of a process that was now understood -- regardless of its outcome -- as the equivalent of peacekeeping. So important was that ethical priority, and so irrelevant the fact of Soviet noncompliance, that another unequal and unenforceable new Treaty was regarded as a reasonable price.

Completely apart from the new compliance questions it would engender in its own right, SALT II's approval of the process set in motion by SALT I would be a political event of great significance. Even if one's comprehension of strategy were limited to the notion of deterrence through punitive retaliatory credibility alone, SALT I had severely reduced American maneuverability while calling the simultaneous emergence of a credible Soviet counterforce threat legal. So long as the U.S. continued to address such a reality purely on the basis of whether or not it

---

<sup>1</sup>Martin Tolchin, "Carter Asserts U.S. is Able to Monitor Treaty with Soviet," New York Times, Apr 4, 1979, p. 41.

represented Soviet compliance in a strict legal sense, more important implications involving national security would remain secondary. SALT II's ratification would not only ratify SALT I as implemented, but it would also continue a process that substituted questions about national security with questions about technical-legal compliance. Indeed, the entire debate over SALT II's ratification would be presented to the public as if such technical-legal questions were the central issue.

This chapter argues that today's real problem in modern security policy is that questions about compliance change the answers because, as a replacement for traditional national security management, arms control changes the questions. Section one begins this discussion by demonstrating the often misunderstood distinction between verification -- a guideline to arms control decisions -- and intelligence -- a guideline to traditional national security decisions. Section two discusses how the misperception of that distinction, coupled with institutional pressures against the discovery of violations, has enabled a single mindset (often, in fact, a single mind) to dominate national security decisions in the guise of compliance adjudication. Section three concludes that continued

misapprehension renders the epistemological dilemma inescapable, that the relevance of proof, culpability, and enforceability will continue to obscure the central objectives of national security, and that exacerbation of the bilateral chasm described in Part One will persist and worsen so long as modern arms control relies on the technical-legal logic that has rationalized it to date.

1. Intelligence and Verification: New Criteria for National Security Crises and Responses

In October 1962, American intelligence analysts examined the product of what are now called "national technical means," and concluded that the U.S.S.R. had begun the deployment of SS-4 "Sandal" IRBMs at fifteen sites in Cuba. The liquid fueled SS-4 had a throw weight of 3000 pounds, an accuracy (CEP) of 1.25 nautical miles (NM), a single warhead with a one-megaton (MT) yield, and a range of 1200 NM.<sup>2</sup> The potential threat posed by the emplacement of these weapons in Cuba was significant indeed. Aside from the Ilyushin II-48 medium range bombers that accompanied the IRBMs,<sup>3</sup> the missiles themselves held over one third

---

<sup>2</sup>John M. Collins, U.S. - Soviet Military Balance, Concepts and Capabilities 1960 - 1980 (Washington, D.C.: McGraw-Hill Publications Co., 1980), p. 461.

<sup>3</sup>Harold W. Rood, Kingdoms of the Blind (Durham: Carolina Academic Press, 1980), p. 97.

of the contiguous American States within their range. After discussing the evidence with professional analysts and examining the intelligence information himself, President Kennedy identified the situation to the American public as a "crisis," imposed a naval quarantine around the Island, and demanded the immediate cessation of missile site preparations and the removal of all delivery vehicles capable of attacking U.S. territory with nuclear weapons.<sup>4</sup>

Kennedy's action was prompt and resolute. The deployments in Cuba were unacceptable because their purpose, he explained, could be "none other than to provide a nuclear strike capability against the Western Hemisphere."<sup>5</sup> Seizing the public airwaves to inform his astonished population, Kennedy explained that "this government feels obliged to report this new crisis to you in the fullest detail."<sup>6</sup> The President was particularly appalled by the "deceptiveness" of "repeated assurances of Soviet spokesmen, both publicly and privately delivered, that the arms buildup in Cuba

---

<sup>4</sup>Ibid.

<sup>5</sup>John F. Kennedy, "Soviet Missiles in Cuba," Annals of America, Vol 18 (Chicago: Encyclopaedia Britannica, Inc., 1968), p. 140.

<sup>6</sup>Ibid.

would retain its original defensive character..."<sup>7</sup> He then went on to cite specific assurances from the Soviet Government and its Ambassador, declaring in each case that "that statement was [or was also] false."<sup>8</sup> In any case, asserted the President:

Neither the United States of America nor the world community of nations can tolerate deliberate deception and offensive threats on the part of any nation, large or small.... Nuclear weapons are so destructive and ballistic missiles are so swift that any substantially increased possibility of their use or any sudden change in their deployment may well be regarded as a definite threat to peace.<sup>9</sup>

Acting, therefore, "in defense of our own security and of the entire Western Hemisphere, and under the authority entrusted to [him] by the Constitution...", Kennedy set upon a course of action that he described as "full of hazards..., but...consistent with our character and courage as a nation and our commitments around the world."<sup>10</sup>

Kennedy's actions had nothing whatsoever to do with any international agreement then on the record. In justifying his assertiveness to congressional leaders,

---

<sup>7</sup>Ibid, p. 141.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid, p. 142.

allies, adversaries, and the American people, he appealed to no legal tradition -- not even to the Monroe Doctrine. There was therefore no "violation" at stake and nothing to "prove," except that American security had been unacceptably jeopardized. Kennedy's purpose, as explained in his televised address, was simply to inform his audience that he had ordered military and naval action in reaction to an intelligence input, in defense of his nation's borders, and in fulfillment of what he perceived as his Constitutional responsibility. Although as discussed in Chapter Six the evidence surrounding Soviet missiles in Cuba was uncommonly clear, the American reaction abrogated no contract limiting weapon deployments, disrupted no "process" then in being, involved no "guilt" in legal terms, relied on no "other parties'" concurrence in its verdict, and required no one's cooperation in its resolution.

Kennedy's decision to negotiate the conflict's outcome was an unnecessary act of magnanimity resulting from incorrect cost-benefit computations. But whether the Soviets were coerced by American power as conventional wisdom has it, or lured from the outset by their own calculation of costs and benefits as Professor Rood argues, the question of right or wrong

was irrelevant to the Soviet decision to remove the missiles. The situation is altogether different when the undesired Soviet activity in question involves the question of their compliance with a treaty. By 1979 the Soviets had deployed some 1900 nuclear warheads totaling over 1500 megatons on SS-17s and SS-19s in what should have been considered a clear violation of SALT I. With throw weights of at least 6000 and 7000 pounds respectively, the SS-17s and SS-19s held all 50 American States well within their range; and with accuracies of within a quarter-mile the new missiles by themselves threatened the credibility of the entire American retaliatory doctrine.<sup>11</sup> Yet because the U.S. could not or did not prove that these deployments had also violated SALT I, no Soviet resolution to discontinue their deployment was ever demanded.

Generally speaking, verification is to intelligence what arms control is to national security. In theory, arms control is a servant of the national security machinery; in practice, arms control leads to process preservation goals that are often at variance with national security interests. Intelligence specialists

---

<sup>11</sup>John M. Collins, The U.S.-Soviet Military Balance, Concepts and Capabilities 1960-1980 (Washington, D.C., McGraw-Hill Publications Co., 1980), pp. 438-451.

examine information from many sources, with many possible meanings, and draw conclusions regarding potential threats to national security. Verification specialists examine similar information, compare its multiple implications with their understanding of a treaty's language, and suggest tentative conclusions to their superiors as to whether observed activities comprise compliance from an arms control standpoint. If noncompliance with a Soviet-American arms control agreement is suspected, a series of difficult decisions must be made: Is it a serious enough case of noncompliance to be raised at the SCC? Can the case be made at the SCC without compromising intelligence assets? Is it "strategically significant" enough to risk such a compromise? If the Soviets do not concur with U.S. interpretations of the evidence and the agreement, is continued American compliance with the agreement still in the national interest? Under what conditions should the U.S. go public with the matter? These are not simply intelligence or threat assessment questions but judgmental matters of a highly political nature.

Obvious though the distinction between intelligence and verification may appear, it is easily lost in the noise level of debate over an agreement's merits. In a

speech to American newspaper publishers during Senate ratification hearings on SALT II, for example, President Carter once asked himself rhetorically: "how can we know whether the Soviets are living up to their obligations under this agreement"?<sup>12</sup> He then answered himself with an assertive appeal to his listeners' confidence in the intelligence community's monitoring skills:

No objective -- no objective -- has commanded more energy and attention in our negotiations.... Our confidence in the verifiability of the agreement derives from the size and the nature of the activities we must monitor and the many effective and sophisticated intelligence collection systems which we in America possess.... The sensitive intelligence techniques obviously cannot be disclosed in public, but the bottom line is that if there is an effort to cheat on the SALT agreement..., we will detect it, and we will do so in time fully to protect our security.<sup>13</sup>

But as discussed in Chapter Seven, there is far more to "verifying" than just "monitoring" and "detecting." Even if the decision is made to raise the issue at the SCC, R.W. Buchheim, former U.S. Commissioner to the SCC, has explained:

---

<sup>12</sup>Remarks of President Jimmy Carter before the Annual Convention of American Newspaper Publishers Association, New York, 25 April 1979. Weekly Compilation of Presidential Documents, April 30, 1979, p. 696.

<sup>13</sup>Ibid, p. 697.

...unless or until the contracting parties declare their wish to amend or withdraw from an agreement, those charged with its implementation must operate on the assumption that the agreement is to be sustained and that it is their task to solve any problems which rise up in the path of its continued functioning, not to create... problems.<sup>14</sup>

Carter, of course, either was or should have been aware of the mind game he was playing with the press, because the intellectual distinction between verification and intelligence monitoring is official executive branch policy. One ACDA publication explains the two stage process as follows:

For the very reason that verification and intelligence are so intimately connected, it is important to emphasize the differences between them. What distinguishes verification from arms related intelligence most of all is its method of approach. While the chief mission of military intelligence is to determine the characteristics and activities of an opponent's weapons and forces, verification must assess whether those characteristics or activities exceed the limitations imposed by an agreement. Accordingly, the task of verification can be more demanding than that of traditional intelligence.... Hence, the evidence indicating that violations are occurring will have to be of a higher quality than the evidence needed to react to comparable actions

---

<sup>14</sup>R.W. Buchheim, "The U.S.-U.S.S.R. Standing Consultative Commission and its Work," Address presented by Ambassador Buchheim, April 22, 1981, (Washington, D.C.: Arms Control and Disarmament Agency), p. 9.

by an adversary without an agreement.<sup>15</sup>

Verification can be more demanding indeed. Buchheim describes the range of issues on which fine judgment must be exercised:

Problems of implementation can arise, among other ways, from tentative signs of possible noncompliance which could indicate that a party might be setting out upon a course not consistent with the provisions of an agreement as understood by either or both of the parties, or upon a course of action not fully contemplated in the explicit provisions of the agreement, or upon a course involving circumstances substantially different from any anticipated by the parties when the agreement was formulated.<sup>16</sup>

The presence of an arms control agreement therefore activates a set of questions entirely apart from those to which the intelligence analyst would otherwise address himself. If the issue were as simple as Carter described it to the American Association of Newspaper Publishers, then the case against SS-17s and SS-19s should have been far easier to resolve than the case against Soviet missiles in Cuba. According to SALT I's principal negotiator, missiles as large as the SS-17

---

<sup>15</sup>Verification: The Critical Element of Arms Control (Washington, D.C.: Arms Control and Disarmament Agency Publication 85, March, 1976), pp.4-5. Emphasis mine.

<sup>16</sup>Buchheim, "The U.S.-U.S.S.R. Standing Consultative Commission and its Work," p. 9. Emphasis mine.

and SS-19 had been specifically outlawed. The mechanisms in place to monitor the threat had undergone a decade of growth and, unlike the "spy systems" used in 1962, NTM were officially permitted after 1972. NTM performed entirely as advertised in the latter case -- leaving no room for argument as to whether or not the silo enlargements in question had taken place. No amount of on-site inspection or other "intrusive" monitoring license would have enhanced the American argument beyond what it was. Moreover, if any unintended confusion did exist, a formal bilateral Commission was in place specifically to deliberate misunderstandings -- and in a spirit far more collegial than the barbaric "hot line" had fostered in earlier disputes. Indeed a whole new relationship designed to resolve disagreements in a spirit of reciprocity and mutual benefit -- norms hardly characteristic of cold war relations -- had been instituted as the basis of SALT I. Yet, although the SS-17s and SS-19s were incomparably more threatening to the U.S. than had been the IRBMs in Cuba, the new heavy ICBMs were not just tolerated, but defined by American verifiers as entirely compatible with SALT I and the new Soviet-American relationship it had fostered.

From the standpoint of national security policy,

the principal difference between the SS-4 "crisis" and the SS-17/SS-19 "divergence of opinions" was that the earlier incident was prohibited by a traditional security policy -- as monitored by an intelligence apparatus; the latter was permitted by an arms control agreement -- as verified by technical-legal compliance policy. Another key difference, of course, is that in 1962 the U.S. saw itself as competent to resolve a zero-sum political confrontation in a manner that was advantageous to itself. Compliance policies are responsive to a new and different set of realities and are molded on a day to day basis by the political exigencies in being. Verification, as opposed to intelligence, is a political decision-making process in which compliance-related judgments are made. Verification of compliance requires no overt, assertive public action; it is presumed unless verification of noncompliance -- proof -- is established. Proof is less relevant in the enforcement of traditional security policies because if a threat assessment turns out to have been overstated, than a necessary response of presumed difficulty is merely simplified -- possibly as a result of the contemplated reaction.

In the enforcement of an arms control regime, the

burden of proof is assumed by the offended party; in the enforcement of traditional security policy, it is the transgressor who is normally compelled to justify or discontinue his offensive actions. Even in the Cuban incident the evidence of SS-4s was sufficiently ambiguous to generate ambivalence regarding American response options; but the choice between confrontation and peaceful resolution was shifted to the Soviets by Kennedy's action. When the SS-17s and SS-19s were deployed after SALT I, on the other hand, the U.S. had to prove their illegality to Soviet satisfaction, withdraw from the fledgling "broad political relationship" on the basis of ambiguous treaty language, or redefine compliance to accommodate the new threat.

The 1962 incident could also have been downplayed, of course, by calling the Soviet missiles defensive and acceptable. Indeed this is precisely what has been done regarding Soviet weapons in Cuba since 1962. But such doubts about the intended use of deployed weapons are more relevant to compliance decisions because arms control is equated by definition with the preservation of a peacekeeping process -- a process which, unlike traditional security policy, must live with ambiguity. Had Kennedy been operating within the framework of a

formal agreement about Soviet weapons in Cuba -- as have his successors -- then his actions would have been guided not just by an intelligence assessment, but also by a compliance policy designed to preserve the process and thus to avoid confrontations. In such a case, Soviet arguments about the defensive character of the deployed weapons would have been operative instead of "deceptive." American inability to prove the SS-4s' repugnance in treaty terms could easily have rationalized inaction by Kennedy -- in the interest of a higher cause: "peacekeeping" in Carter's words.

A compliance policy, which is an empty category in the absence of an arms control agreement, not only adds new options to crisis management but also makes more assertive (traditional) options much more difficult to justify -- especially for an open democratic society. American treatment of offensive Soviet weapons in Cuba since 1962, at which time a negotiated settlement was reached, offers a case in point. Since 1962, policy toward Cuba has been governed by the 1962 Kennedy-Khrushchev agreement and its continually evolving compliance policy. Today, however, it is reported that Soviet submarines carrying nuclear weapons and their delivery vehicles dock regularly and refuel at Cuban ports from which they patrol the

Atlantic and Gulf of Mexico; in 1978 the Cuban port at Cienfuegos was expanded to enable the servicing of nuclear warheads; two Soviet squadrons of MIG jets capable of delivering nuclear weapons to the U.S. are also now stationed in Cuba; runways have been lengthened to accommodate Backfire bombers; and a Soviet "combat brigade," which reportedly specializes in the handling of tactical nuclear weapons, was stationed in Cuba in 1978 with the specific approval of President Carter.<sup>17</sup> Like the SS-4s in 1962, each of these deployments was monitored by the American intelligence apparatus. Unlike the SS-4s, they were also evaluated in the context of a compliance policy, and found to be "not offensive," and therefore acceptable.

The difference between a security policy guided purely by strategic self-interest, on the one hand, and one guided by a requirement to preserve a process, on the other, is therefore a substantial one for the role of traditional intelligence. Instead of simply sorting

---

<sup>17</sup>"Cuba's New Missiles," Richmond Times-Dispatch, July 5, 1982, p. 26. The article cites evidence both empirical and circumstantial accumulated by Christopher Whalen of the Heritage Foundation. See also Ralph Bennet and Jay Mallin, "The Increasing Threat of a Sovietized Cuba," Washington Times, July 26, 1982, p. 8. See also "Cuba: Yesterday and Today," Grand Strategy, 2 (Jan. 1, 1982), pp. 2-6.

out various bits of information in order to discern actual or potential threats to one's security, compliance monitoring calls for political judgments involving priorities and relative significance. The product of compliance monitoring has to be good enough not just to detect but to prove the noncompliance of an implacable, secretive adversary to a skeptical domestic population that would prefer to presume innocence. The problem of proof will be discussed in a separate section of this Chapter but merits mention here because it drives two important complications for intelligence analysts. In the first place, the requirement for stringent proof of a closed society's compliance or noncompliance constrains arms-control to those activities that the U.S. can confidently monitor and measure. Although this prerequisite is very often ignored by American negotiators who are eager to reach an agreement, it requires the U.S. to specify with some precision the parameters of its intelligence skills with regard to Soviet weapon systems under discussion. Secondly, since meaningful arms control is not necessarily coincident with verifiable arms control, and since negotiators would like to achieve both, it is often necessary to limit symbols of weapon systems rather than the weapons themselves. These two

propositions will be the subject matter of the remainder of this section.

The imposition of a role in the verification process on the intelligence community places intelligence assets -- assets that are needed for threat assessment purposes -- at risk. In addition to the new and often irrelevant monitoring priorities that accompany an arms control agreement, unique problems incumbent upon an open society when monitoring a closed society create an entirely new set of opportunities for the Soviets to probe the espionage skills of the U.S. Such probing often enables the Soviets to discover what the U.S. knows about present and future Soviet deployments, to reinforce incorrect American judgments about those deployments, and to obscure those sources of information that the Soviets may have preferred to be unavailable to the U.S. Such opportunities are available to the Soviets in both the negotiation and implementation phases of an agreement. Ongoing Soviet telemetry encryption could be one example in which the Soviets have discovered the value ascribed by U.S. intelligence to a specific source of information, carefully preserved legal escapes from provisions barring its denial, then systematically exploited those escape provisions by encrypting information the U.S.

regarded as crucial. The mere fact of an American willingness to specify certain Soviet weapons as the subject matter of negotiations betrays a minimum of American monitoring skill of which the Soviets may or may not already have been aware.

SALT also required Americans to certify their own best estimate of the Soviet arsenal if there was to be any data base whatsoever for negotiations. American acceptance of Soviet silence as an adequate response on such matters -- naive enough from a legal standpoint -- was particularly costly from an intelligence standpoint by virtue of the unilateral character of the information "exchanged." Intelligence is a difficult enough problem when the object of one's attention is secretive and deceptive; arms control complicates the problem by necessitating the revelation of how successful the U.S. has become in overcoming that barrier. In negotiations for SALT II, the U.S. effectively acknowledged that it could not measure key parameters of Soviet ICBM modernization unless the change was at least five percent.<sup>18</sup> In ratification hearings, the Administration acknowledged that in many instances the five percent figure was an unduly

---

<sup>18</sup>U.S. Congress, Senate, Committee on Armed Services, Military Implications of The Proposed SALT II Agreement, Dec. 20, 1979, p. 13.

optimistic parameter. As the debate unfolded, it became clear that the Soviets could often make improvements of twenty percent or more without their even being detected by American NTM.<sup>18</sup> Obviously if it is Soviet ignorance about the specifics of American intelligence collection skills that makes such assets reliable in the first place, arms control degrades intelligence and threat assessment capability for the sake of verification. In this sense, arms control is far more harmful than helpful in the enablement of monitoring.

The urge to make an agreement arguably verifiable necessitates numerous such trade-offs in intelligence monitoring's credibility. Since the Soviets must cooperate in some manner (by agreeing to nonconcealment provisions, by providing identifiable characteristics of weapons, etc.) in making controlled weapons "verifiable," and since they are also highly selective in what they will permit the U.S. to observe, they acquire an asymmetric voice in the selection of which weapons are to be included in an agreement. But since a "verifiable" agreement is also one whose substance is subject to continuous monitoring, the Soviets are

---

<sup>18</sup>U.S. Congress, Senate, Committee on Armed Services, Military Implications of The Proposed SALT II Agreement, Dec. 20, 1979, p. 13.

thereby granted considerable sway over the American intelligence community's resource allocation decisions as well. However effective and pervasive NTM may be, they are also scarce intelligence assets that must be judiciously employed so as to monitor those aspects of the threat that are most important to the American national security planner. By granting the Soviets power to divert NTM through arms control, the U.S. proceeds on the assumption that those weapons (or symbols of weapons) designated in an agreement are also the most important objects to which one must attend from a security standpoint. This may or may not be the case, of course, but it is certain that a high priority must be assigned to those Soviet systems constrained by a treaty, that other "targets" must be downplayed or ignored as a result, and that the Soviets have a good deal more to say about what those controlled systems will be than does the U.S.

In a frequently misdirected effort to resolve the dilemma, the U.S. often defines as threatening, from a security standpoint, those components of Soviet weapons that are most observable from a verification standpoint. The definition of ICBMs is the classic example -- akin to the joke about a drunk looking for his lost car keys where the light is better. Large

silo launchers are observable and measurable if one knows where they are; missiles are not. But confusion between the weapon and its symbol is taken to its logical extreme: today, all of the most commonly cited strategic balance computations (IISS, Library of Congress etc.) report SALT's "data base" on silo launchers as a precise measurement of Soviet ICBM strength. This infrequently challenged approach to threat assessment dominates Western "analysis" even while the Soviets focus future development resources on less observable but far more threatening aspects of a weapon. Thus, while American verifiers argued about the size of the SS-19's silo, the Soviets MIRVed the upper stage of the missile and perfected its guidance system -- both of which were completely unexpected within the American intelligence community's threat assessment process.

Amrom Katz has pointed out that SALT II itself falls prey to the treatment of missiles and launchers as interchangeable concepts. Article III of that agreement limits ICBM launchers, heavy bombers and ASBMs; Section 2 of that Article then says, "Each party undertakes to limit from January 1, 1981 strategic offensive arms referred to in paragraph 1 of this Article." According to this logic, ICBM launchers are

strategic offensive arms.<sup>19</sup> Such confusion between threats and symbols is an important part of the lulling process that accompanies arms control. Treaties could not be called verifiable if their subject matter was missiles because the U.S. has no reliable means of estimating how many missiles the Soviets possess.<sup>20</sup> But defenders of agreements' verifiability have it both ways. They define as strategically significant those portions of the Soviet arsenal that are most easily observed and measured, but they allow as how undetected variations from the limits imposed on those symbols of Soviet strength, while possible, would not be strategically significant. According to SALT II, for example, "ICBMs" cannot be changed by more than five percent in certain observable aspects of their performance, but according to advocates of the Treaty's

---

<sup>19</sup>Amrom H. Katz, "The Fabric of Verification: The Warp and the Woof," in William C. Potter, Ed., Verification and SALT: The Challenge of Strategic Deception (Boulder: Westview Press, 1980), p. 205.

<sup>20</sup>Along these lines Katz often argues that the U.S. does not even know how many Soviet missiles are deployed. SALT has obscured this interesting observation by placing limits on deployment of missiles while defining missiles as silos and by avoiding altogether the definition of deployment. Silos are useful, says Katz, because they depend on blast resistance for protection, but secret deployment serves the same purpose in reserve force survivability. See Katz, "The Fabric of Verification," p. 207.

verifiability, the undetectable difference between five and ten percent would not matter from a security standpoint anyway.

Such doublethink with regard to the distinction between verifying and monitoring is simplified by the mixing of arms control's monitoring mission with national security's monitoring mission. In the latter case, the difference between five and ten percent in a new Soviet missile's destructiveness may indeed be strategically less relevant. But if traditional approaches to national security were at work, then the U.S. would not have imposed Constitutionally sanctioned restrictions on its own response options either. Verification is, by the U.S. Government's own description, far more demanding than intelligence monitoring precisely for this reason. If traditional intelligence analysis measures an increase in the threat, this becomes the basis for some action in security maintenance terms; if verification discovers no "appreciable" change in the threat, this is the basis for continued inaction in arms control maintenance terms. But one cannot have it both ways. Minor changes in the threat are "irrelevant" when minor corrections in one's response are thereby necessitated; but minor changes in the threat are highly relevant if

minor responses are ruled out by the U.S. Constitution by way of a ratified treaty.

In legal terms, a "minor" American abrogation of a treaty would be just as unconstitutional as a "major" abrogation. Furthermore, while the Soviets can quibble about the difference between the actual and intended uses of a new weapon, the U.S. government remains bound by its own intended meaning of any agreed restriction. Even if "symbols" are used to define otherwise invisible Soviet weapon systems, those externals are understood to constrain actual American weapons. Verifiers therefore have no license to ascribe irrelevance to the same adjustments in the Soviet threat that intelligence analysts might judge to be minor. Verifiers are not threat assessors whose findings determine the magnitude of an American response; they are referees of a process that binds the U.S. to a no-response regime so long as the process remains in effect. Confusion between the standards of monitoring used for verification and intelligence is more than just semantical nonsense; such confusion is pernicious, purposeful, and self-serving for those who wish security problems to be addressed as compliance problems.

2. The Verifiers: New Respondents to Enduring Questions.

When arms control becomes a centerpiece of national security, related security questions become compliance questions. This tranference not only changes the questions and their answers, however, but also the agencies of government and the particular individuals who will address these issues. Security questions continue to arise and continue to confront government decision makers, but the "action" moves forthrightly from the military to the diplomatic realm when the question at hand involves a past, present, or potential future arms control agreement. Indeed, the Arms Control and Disarmament Agency was chartered in 1961 for the stated purpose of counterbalancing military responses to security questions. In conjunction with the State Department, ACDA's strength in the federal bureaucracy is greatly enhanced by the high priority status currently ascribed to negotiated security.

Although it is nowhere specified in the Constitution or in public law who will "make" compliance policy, such authority is generally understood to be a part of the president's national security responsibility and therefore becomes an Executive Branch function. Compliance and verifiability

are thus matters of judgment to be resolved within a vast interagency network in which "decisions" come about by default as often as by official policy guidelines. As Mark Lowenthal has described the process in a Library of Congress study:

As with all bureaucracies there are two processes at work in U.S. SALT verification efforts: the formal process, which is neatly delineated by assigned tasks and chains of authority, and the system as it actually works under the pressure of events, personalities, bureaucratic politics, and preferred working relationships that do not correspond to the formal structure.<sup>21</sup>

Indeed, as this passage suggests, the pressure of events often creates a situation in which the power of personality can dominate a political process. Nowhere has this been more clearly manifest than in Henry Kissinger's seizure of the reins in matters related to the verifiability of negotiations and the viability of Soviet compliance during SALT I. During the negotiation phase of the agreements, Kissinger's domination of the "back channel" resulted in virtually all of the obscure definitions and strange legal provisions discussed earlier; during the agreements' implementation, Kissinger was free to interpret the

---

<sup>21</sup>Mark M. Lowenthal, "U.S. Organization for Verification," in Potter, Ed., Verification and SALT: The Challenge of Strategic Deception, p. 77.

negotiating record and its meaning in a manner that was unbridled by any commonly understood political constraints. Operating under the guidance of a President whose foreign policy "activism" and expertise were his trademarks, Kissinger entered the second term of the Nixon Administration at center stage. SALT I had been ratified; negotiations for the American withdrawal from Vietnam were nearing completion; and war in the Middle East would soon make Kissinger a global celebrity. But the extent to which these events would rely on Kissinger's personal worldview would be magnified by the burdens of Watergate on Nixon -- the only political force powerful enough to counterbalance Kissinger's emergent strength. As Kissinger himself describes his August, 1973 appointment to head the State Department:

We were straining all our efforts to prevent the unraveling of the nation's foreign policy as Nixon's Presidency, and with it all executive authority, slowly disintegrated. I had achieved an office I had never imagined within my reach; yet I did not feel like celebrating. I could not erase from my mind the poignant thought of Richard Nixon so alone and beleaguered and, beneath the frozen surface, fearful just a few yards away, while I was reaching the zenith of acclaim.<sup>22</sup>

Preventing the "unraveling of the nation's foreign

---

<sup>22</sup>Henry Kissinger, Years of Upheaval (Boston: Little, Brown and Co., 1982), p. 5.

policy" meant preventing the unraveling of SALT and retente -- policies Kissinger had authored as Assistant for National Security Affairs, a position he now held jointly with his new job as Secretary of State. The retention of his earlier office at the White House would be important because Kissinger -- who had assured Congress in 1972 that his compliance policy relied on SALT I's Unilateral Statements, and who would explain to the press in 1975 that it did not -- could refuse to testify on either statement on the basis of executive privilege. Responding to the press regarding allegations brought forth in the agreements' aftermath, however, Kissinger would explain that: "several meanings can be attached to the notion of violation"; that these were "being used interchangeably in the debate;" that "one part of the process of government is to refine the information until...senior officials can make a reasoned judgment;" but that "the charge of a violation of a formal agreement is not a minor matter to be introduced into diplomatic discourse."<sup>23</sup> Rationalizing the primacy of agreements' political importance over the strategic consequences of questionable compliance, Kissinger, on his own

---

<sup>23</sup>Clarence A. Robinson, "Kissinger Deliberately Concealing SALT Violations Zumwalt Claims," Aviation Week and Space Technology, Dec. 8, 1975, p. 13.

authority, would thereby reverse the criteria according to which he had persuaded Congress to approve the agreements.

It is interesting that Kissinger, having redefined the standards of compliance adjudication in this manner, and having asserted that the notion of violation bore "several meanings," understood the determination of which meaning applied to which particular case to be reserved for "senior officials." This was an important point on which his further elaboration would have been useful. Intelligence analyses had become verification analyses without any clear explanation of who the senior officials were on whose "reasoned judgment" national security now rested. One former senior official, whose judgment on such matters had qualified him as the Administration's principal witness during ratification hearings, Melvin Laird, clearly held a different opinion altogether regarding the meaning of violation:

The evidence is incontrovertible that the Soviet Union has repeatedly, flagrantly, and indeed contemptuously violated the treaties to which we have adhered.<sup>24</sup>

Perhaps in his new capacity as a private citizen, Laird's reasoned judgment had deteriorated, but his

---

<sup>24</sup>Melvin R. Laird, "Arms Control: The Russians Are Cheating!" Reader's Digest, Dec. 1977, p. 98.

understanding of the notion of violation went well beyond the technical-legal debating points on which official decisions were being made:

...it is terribly clear that [the Soviets] remain determined to gain decisive military superiority over the United States, and that in pursuit of this end they have been willing to dishonor their most fundamental agreements with us.... I think Soviet leaders contemplate threatening the use of their superiority to drive the United States into headlong retreat and isolation from its vital interests around the world.<sup>25</sup>

Laird's reasoned judgment as to which meaning of violation applied to Soviet behavior after SALT I was clear: intelligence assessments indicated that national security was being severely threatened in ways he understood the agreements to have disallowed. But this outdated framework of analysis had changed by 1975 and so had the Secretary of Defense. Unlike Laird, whose reasoned judgments now lacked official relevance, James Schlesinger was the Secretary of Defense who testified during Kissinger's implementation phase. Although clearly more constrained than Laird by his position in the Administration, Schlesinger's understanding of the "notion of violation" was clearly at odds with Kissinger's as well. Answering questions from Senator Jackson's Armed Services Subcommittee

---

<sup>25</sup>Ibid, pp. 100-101.

on Arms Control, Schlesinger described the SS-19 deployment's legal standing as follows:

Secretary Schlesinger.... It is inconsistent, quite clearly, I think, with our understanding of our own unilateral statement. But the Soviets do not feel bound by that unilateral statement...

Senator Jackson. As a matter of fact, it is inconsistent with the assurances given to Congress.... And Secretary Laird, who testified then, has subsequently said that if the information as we now have it is true, then the Soviet replacement program is a clear violation of that understanding.

Secretary Schlesinger. It is a clear violation, Mr. Chairman, of our unilateral statement.<sup>26</sup>

Jackson's objection was not only that the Unilateral Statements themselves had failed to institutionalize a compliance policy, but also that the traditional checks and balances of the American political system had been discredited in their effort to do so. Citing from Administration witnesses and Presidential messages to Congress, Jackson challenged directly the reconstructed logic according to which subsequent Soviet behavior was said to be compatible with American compliance policy. In each case,

---

<sup>26</sup>U.S. Congress, Senate, Hearing Before the Subcommittee on Armed Services, Soviet Compliance with Certain Provisions of the 1972 SALT I Agreements, March 6, 1975, pp. 5-6.

Schlesinger could only concur:

Secretary Schlesinger. By the definition you have cited [Kissinger's 1972 definition], Mr. Chairman, all of the SS-19s, at least, would be defined as heavy.<sup>27</sup>

Secretary Schlesinger. I think it is clear from your observations, Mr. Chairman, that the expectations that the administration had [sic] went unfulfilled....<sup>28</sup>

Secretary Schlesinger: I think that probably at that time [1972] the belief existed that if we asserted firmly enough that we believed something or other should not take place, that the Soviets would be persuaded that they ran too high a risk.... I think that belief turned out to be inflated and erroneous.<sup>29</sup>

Secretary Schlesinger: ...[T]he problem of monitoring arms control agreements is a very difficult problem. The real issue is, if you have detected a violation...it is not completely demonstrable that there has been any violation.... But if you have discovered a violation what do you do then? And I think in this connection that the paper by Fred Ikle of a decade or more ago is one of the best pieces of work on the subject. And I commend it to the members of this committee, as well, if you have not had an opportunity to look at it.<sup>30</sup>

Although few seemed to pick up on the implication of what Schlesinger was saying, his reference to the Ikle article was a scathing indictment on the extant

---

<sup>27</sup>Ibid, p. 6.

<sup>28</sup>Ibid, p. 8.

<sup>29</sup>Ibid, p. 13.

<sup>30</sup>Ibid, p. 21.

politics of compliance control. Ikle's decade and one-half old rebuttal to the emergent technical-legal bridge theory tradition, as discussed in Chapter Six, had foreseen the mid-seventies dilemma with remarkable clarity. Ikle had suggested that beyond the technicalities of monitoring, study should be devoted not only to what an adversary might do to avoid detection, but also to "what he may do to escape the penalty of being detected."<sup>31</sup> Unless such possibilities were clearly understood in advance, explained Ikle, democratic governments would experience serious difficulties in "reacting effectively to a detected violation." Difficulties specifically anticipated by Ikle had included:<sup>32</sup>

1. The injured government must acknowledge the fact that there has been a violation. If the violation is open and well publicized, no difficulty exists. But if evidence of the violation is equivocal or based on secret intelligence, the government may be reluctant to acknowledge the evasion or feel unsure of its ability to convince public opinion...

2. The injured government must be willing to increase military expenditures and to offend pacifist feelings.... It is ironic that it may be domestic public opinion -- or rather the government's conception of it -- that

---

<sup>31</sup>Fred Charles Ikle, "After Detection -- What?" Foreign Affairs, 39 (Jan, 1961), p. 208.

<sup>32</sup>Ibid, pp. 211-214.

actually prevents effective sanctions being taken...

3. The injured government must accept the new risks created by its reaction to the violation. It may see more than the domestic difficulties involved.... It has been argued that all countries will be deterred from violating a major arms control agreement in present circumstances because to do so would set off an unrestricted arms race that would eventually lead to disaster for the guilty as well as the innocent. But this is an assumption that may not be shared by a country set on violating the agreement. Its leaders may reason that the very prospect of an unrestricted arms race might itself inhibit the injured party from reacting to the violation.... And in fact the injured party might feel it safer to write off the violation as a loss rather than risk new dangers by a policy of rearmament -- especially if it finds itself in a weaker position as a result of having complied with the agreement.

Kissinger -- not among those who overlooked the implications of Schlesinger's association between existing failures and ones that had been anticipated years earlier -- was not at all happy about Schlesinger's candor before the Jackson Committee. He has since reflected on this testimony and its immediate results:

What may have started as a marriage of convenience [between Jackson and Schlesinger] soon become a symbiotic [sic] relationship. The two men became fast friends, sharing similar assessments. This gradually edged Schlesinger into open opposition to his President.<sup>33</sup>

---

<sup>33</sup>Kissinger, Years of Upheaval, p. 1154.

Secretary Schlesinger, who was fired by President Ford within months of this testimony, was, like Laird, not among those senior officials deemed capable of reasoned judgment on such matters by Kissinger. More specifically, the meanings that Schlesinger attached to the notion of violation were not among those "several" deemed correct by Kissinger.

Kissinger, whose chairmanship of the National Security Council had given him great powers in the adjudication of such matters, had retained that position after he became Secretary of State. Later, when President Ford removed Kissinger from his position as chairman of the NSC, Kissinger still retained his chairmanship of the NSC Verification Subpanel and its subordinate Working Group. Regardless of what formal and informal organization structures existed between 1969 and 1977, regardless of whether arms control was in its negotiation or its implementation phase, and regardless of who was President, Kissinger dominated the process by maintaining the final say on all matters relating to verification. Since arms control had become the central feature of national security management in those years, verification decisions had come to replace intelligence decisions as well. Clearly Kissinger's position in the middle of the

verification machinery enabled him to outmaneuver two Secretaries of Defense, but these were not the only "senior officials" that were excluded from national security decisions that had taken the form of compliance decisions.

Former Chief of Naval Operations, Admiral Elmo R. Zumwalt, has said that "[W]hen it came to SALT, Kissinger was wholly and uncontestably in command," and that "neither I nor any other Chief participated in a meaningful way in the discussion leading to the appalling SLBM numbers...."<sup>34</sup> Additionally, Duncan Clarke's recent history of ACDA notes that:

During the nineteen months of the second Nixon Administration most of the formal NSC mechanisms fell into disuse. A besieged President increasingly conferred with Kissinger; the NSC rarely convened; Kissinger's dominance was described by many as virtually monarchical; and even when the Verification Panel did meet, both supporters and opponents of arms control complained that they were denied an adequate hearing. Access to Nixon was virtually impossible. Access to Kissinger was sometimes not much better.<sup>35</sup>

Furthermore, a 1974 Special Subcommittee of the House Armed Services Committee made specific reference, even after Nixon left office, to "the amount of restraint

---

<sup>34</sup>Elmo R. Zumwalt, Jr., On Watch (Toronto: Fitzhenry and Whiteside, Ltd., 1976), pp. 348 and 403.

<sup>35</sup>Duncan L. Clarke, Politics of Arms Control (New York: The Free Press, 1979), p. 77.

exercised by [Kissinger] over all [SALT related] players," and expressed concern that "varied input into the policy-making process may...be stifled by this control."<sup>36</sup> But even more disturbingly, Zumwalt and others have testified that throughout the era of SALT I's implementation, Kissinger even excluded the President -- not just Nixon but Ford as well -- from the compliance adjudication process,<sup>37</sup> an unthinkable arrangement if one frames the problem in traditional intelligence and security terms.

Kissinger's most recent reactions to these widespread charges seem only to stress further the extent to which political interest determined his decisions. Regarding the SS-19 issue, for example:

SALT I did not prohibit 'modernized' ICBMs provided the dimensions of the silo were not increased by more than 15 percent. But...these weapons were new by any rational definition.... [T]hey left little doubt that

---

<sup>36</sup>U.S. Congress, House of Representatives, Committee on Armed Services, Special Subcommittee on Arms Control and Disarmament, Report: Review of Arms Control and Disarmament Activities, No. 93-72, 1975, pp. 10-11.

<sup>37</sup>See for example testimony by Elmo R. Zumwalt in U.S. Congress, House, Select Committee on Intelligence, U.S. Intelligence Agencies and Activities: Risks and Control of Foreign Intelligence, Hearings, 94th Congress, 1st Session., Nov. 4-6; Dec. 2, 3, 9-12, 17, 1975, pp. 1602-1649. See also testimonies by Ray S. Cline, former Deputy Director for Intelligence (DDI) of the CIA and former Director, State Department Bureau of Intelligence and Research, pp. 1330-1336.

the Soviet perception of stability was not the same as that of our arms controllers.... But opinions on how to deal with this danger diverged radically. Our critics fundamentally wanted to destroy the SALT process; their specific objections were less significant than their passionate desire to defeat SALT to put an end to detente.<sup>38</sup>

Kissinger, whose passionate desire was to preserve detente, opted to tolerate the new Soviet heavy missiles and to dismiss the objections of his "critics" as reactionary. Even though he regarded the heavy missiles as "new by any rational definition," his "critics" could be dismissed as irrational for challenging his new compliance standards. Kissinger appears to have been virtually without political challenge in such matters. Whatever unspecified meaning he personally attached to the notion of violations therefore remains a mystery. Since neither the agreements' official language, nor his executive branch peers in the Department of Defense, ACDA or the JCS, nor the Congress, nor his "critics," nor even the President, had major influence on his "reasoned judgments," compliance policies were evidently subject only to his own personal authority. As the architect of the agreements and the intellectual force most directly tied to detente, his advocacy for the

---

<sup>38</sup>Kissinger, Years of Upheaval, p. 1011.

preservation of both meant that intelligence and national security decisions would be addressed as verification and arms control decisions as long as he remained in office.

The Kissinger model would persist, however, long after he left office. As soon as Paul Warnke took over as Director of the Arms Control and Disarmament Agency in 1977, he disbanded its Verification and Analysis Bureau and transferred its functions to relevant subject area offices -- SALT, MBFR, etc. -- which were under either his own direct control or that of his political appointees.<sup>39</sup> Since it is nearly impossible to dismiss federal civil service employees, Warnke's abolition of an entire Bureau -- a well established method of circumventing such legal barriers -- was widely understood as more of a personnel move than as an organizational belt-tightening move. The effect of the reorganization was to dismiss many of the people hired by Warnke's predecessor, Fred Ikle, including the Verification Bureau's highly regarded Chief, Amron Katz. Following Kissinger's lead by striving to control the politics of verification, Warnke thereby unburdened himself of many members of the so-called

---

<sup>39</sup>Lowenthal, "U.S. Organization for Verification," p. 80.

"Jackson underground" -- ACDA personnel who had frequently criticized the softness of CIA analyses of Soviet compliance under Kissinger's firm hand.<sup>40</sup> Not only had Warnke deprived verification of what little organizational autonomy it previously held, but he had given negotiators (like himself) the power to trade on verification from the moment their efforts to achieve SALT II got underway.

Alarmed by the implications of such trading power in the hands of Warnke's ACDA, and concerned about a continuation of SALT's dismal compliance control record to date, several members of Congress -- Jackson in the Senate, Edward Derwinski in the House -- introduced legislation in 1977 requiring the ACDA Director to report to Congress on a variety of matters relating to verification and to abide by stricter standards during negotiations. The purpose of the bill that would amend the Arms Control and Disarmament Act, according to Derwinski, was the "public feeling that you can't trust the Russians."<sup>41</sup> The House version, which would have declared it to be the sense of Congress that "effective verification" must characterize all agreed provisions, was weakened in conference by the Senate version which

---

<sup>40</sup>Clarke, Politics of Arms Control, p. 187.

<sup>41</sup>Ibid, p. 185.

required only "adequate verification." But the final version did include a provision according to which:

...[T]he Director shall assume that all measure of concealment not expressly prohibited could be employed and that standard practices could be altered so as to impede verification.<sup>42</sup>

Although both the "adequate verification" provision and the "assumption of concealment efforts" provisions were intended to discipline negotiations, their meanings were clearly subject to political interpretation; SALT II's verification provisions are a monument to the 1977 law's ineffectiveness.

In the absence of major organizational overhauls or bureaucratic "massacres" like Warnke's, individuals tend to hold center-stage positions in the arms control process for unlimited tenures. Thus, even the American electoral system often seems incapable of redirecting the verifiers' self-serving policy premises. The July 1980 Republican Party Platform was remarkably clear in its criticism of the arms control guidelines then in use. In rejecting the "fundamentally flawed" SALT II treaty negotiated by the Carter Administration, the Platform pledged

---

<sup>42</sup>The 1977 Arms Control and Disarmament Act, P.L. 95-108, 91 stat., Aug. 17, 1977, p. 871.

...to end the Carter cover-up of Soviet violations of SALT I and II, to end the cover-up of Soviet violation of the Biological Warfare Convention, and to end the cover-up of Soviet use of gas and chemical weapons in Afghanistan and elsewhere.<sup>43</sup>

By comparison with the Carter Administration's "cover-up," promised the Platform, a Republican Administration would

... end the sustained Carter policy of misleading the American people about Soviet policies and behavior. We will spare no effort to publicize to the world the differences in the two systems.<sup>44</sup>

These were serious charges. If the sitting president were supervising compliance adjudication so negligently, then candidate Ronald Reagan had an extremely valid basis on which to request the support of the American people in his bid for the Presidency. Under this promise to "spare no effort" to reverse what he clearly understood as dereliction of duty by his predecessor, the Reagan Administration entered office the following January.

Yet whatever "cover-up" was underway in the Carter Administration has continued to date under Reagan's supervision. Less than a year after the current

---

<sup>43</sup>1980 Republican National Convention Platform, Congressional Record, July 31, 1980, 96<sup>th</sup> Congress, 2<sup>nd</sup> Session, pp. 36-37.

<sup>44</sup>Ibid.

Administration took office, its own Arms Control and Disarmament Agency Director, Eugene Rostow, told an interviewer that "the problem of cover-up of violations is a non-problem."<sup>45</sup> Although he was overruled by the Administration in his effort to do so, Rostow also sought to reappoint Carter's Ambassador to the SCC, Robert Buchheim. "I think I understand what his views are," explained Rostow, "I understand what he said about their not violating the treaty." Rostow then went on to enlighten his interviewer that:

Most of the things that were charged as treaty violations were unilateral interpretations of the treaty presented by our government.... The whole business turned out to be a sad and unpleasant affair.<sup>46</sup>

While it may be unfair to attribute a disproportionate share of responsibility to Rostow simply because he was ACDA's Director at the time, the Reagan Administration has not only proclaimed that the Soviets are in full compliance with SALT II, but has itself vowed to abide by that "fatally flawed" and unratified agreement as well. The Administration has been silent on the subject of Soviet SALT I violations, and in the Fall of 1981 agreed to extend the ABM Treaty for another five

---

<sup>45</sup>John Lofton Jr., "Eugene Rostow: Soviets Cheated on SALT I, Don't Share Same Goals as United States," Conservative Digest, 7 (Nov. 1981), p. 5.

<sup>46</sup>Ibid, p. 6.

years.<sup>47</sup> Some members of the Administration have argued that, while the problem of Soviet violations is there, proof of their occurrence remains inadequate.

3. Proof: An Epistemological Dilemma that Sustains the New Framework

Of all the factors that distinguish verification and arms control from intelligence and national security, the most fundamental is the newer framework's requirement for convincing evidence that a Soviet activity is taking place in exactly the manner described. Intelligence conclusions are by no means given or accepted lightly, but the relationship between the traditional analyst and his consumer is one based on trust and common interest. Evidence of Soviet noncompliance with arms control, on the other hand, must be regarded as convincing not only by the President and his national security advisors, but also by Congress, by the public, and in many cases by allied governments and the world community at large. This is not only the most fundamental distinction between intelligence and verification, but also the least

---

<sup>47</sup>According to the Pentagon's Public Affairs Office, this occurred by unanimous approval by both parties in the SCC in November 1982 (telecon, 22 Feb 1983). But to date there has been no such announcement by the State Department, not even in its normally meticulous documentation of "Current Actions" in its monthly Bulletin.

understood and least commonly acknowledged one. Proof is difficult enough within communities that share common instincts and values; it is nearly impossible in the adversarial, cross cultural setting of modern arms control.

It is particularly ironic that the proof standard would derive from verification's scientific and legal heritage, because proof is a highly elusive undertaking in both disciplines. Indeed it is taken as common knowledge among scientists that proof of any general principle is logically impossible. Traditional philosophies of science resolve this epistemological trap by demanding prompt rejection of accepted "laws" when disproof is encountered, and by holding established wisdoms as tentative in the meantime. The western legal tradition faces up to the same logical dilemma by demanding similarly reproducible routes to conclusions, by submitting most criminal "proof" judgments to a jury of human beings, and by reserving final decisions for an appeals process that reexamines both the evidence and the logic behind a verdict. Scientific and legal traditions impose rigorously conservative standards on their practitioners because the consequences of error are so vital that error on the side of caution is designed into both methodologies.

To impose domestic legal standards on the process of verifying Soviet noncompliance with modern arms control, however, would be to defy the logic according to which verification is needed in the first place. If the presumption of Soviet innocence persists in the absence of irrefutable proof to the contrary, then arms control is based more completely on trust than most Americans realize. Yet indeed such a presumption seems not only to exist, but also to serve as the final process preserving "out" for the verifiers -- when all appeals to the technical inadequacy of monitoring or the conceptual ambiguity of an agreement are exhausted. It is only by imaginative presumptions of innocence and good faith, for example, that Soviet noncompliance with the ABM Treaty could be excused on the basis of Soviet explanations of intent. Since proof of intent is a practical impossibility even in domestic law, the fact that intent is regarded as relevant by the verifiers by itself manifests a presumption of innocence. Domestic law circumvents this logical difficulty by employing such cultural traditions as the "reasonable man" standard and leaving the decision up to a jury, but neither the standard nor the jury is available to the verifier -- only the presumption.

ACDA publications dealing with verification -- particularly those first written during the Katz years -- exhibit a degree of intellectual honesty in dealing with this dilemma. Verification is thus frequently acknowledged to be more difficult than intelligence, and the problem of proving Soviet compliance as a general principle is understood to be prohibitive:

Verification must attempt to prove a negative -- that certain activities prohibited by treaty are in fact not taking place; and in order to do this it has to ask questions which traditional intelligence does not always ask.<sup>48</sup>

It would be unreasonable to expect verification to prove that no prohibited activity of any kind is underway anywhere in the U.S.S.R. This is why Wiesner and others once insisted on a broad license to inspect for "hidden stockpiles" -- as a "hedge" against a still impossible task. But even with such intrusive monitoring capacity, a conclusion of complete Soviet compliance would have to be grounded in something less than categorical proof because there will always be a variety of counter-explanations. Even with the awesome

---

<sup>48</sup>Verification: The Critical Element of Arms Control, p. 4.

combination of American openness and Soviet penetrative skill, it would also be impossible from the standpoint of pure logic for the Soviets to be one hundred percent certain of the complete absence of American noncompliance. Proving a negative is a logical impossibility when one departs the abstract world of mathematics and enters the real world -- particularly the real world of politics, the more so in an "open" and "closed" adversarial relationship.

Nevertheless, there are ways around this logical trap that are purportedly utilized by those who regard arms control as too essential to be inhibited by it. One way is to regulate only very large things -- like silos -- without deluding oneself about the likelihood that the threat may well come from elsewhere. Another way is to constrain less visible things -- like the development or deployment of chemical or biological weapons -- but to limit them to an "absolute zero" so that a single discovery is sufficient evidence of noncompliance. Whichever of these calculated risks is undertaken, however, carries with it a responsibility for prompt and resolute reaction to violations. To accept the risk associated with one's inability to prove the total absence of noncompliance is one thing; such a risk may be the bottom line necessity in the

nuclear age -- even when a society as open and accessible as the U.S. negotiates with one as closed and deceptive as the U.S.S.R. But whether it is explicit or implicit, a presumption of innocence under such conditions makes it equally impossible to prove a positive -- that a prohibited activity is present. This is an epistemological dilemma of an altogether different character from the acknowledged one associated with proving a negative. Although the consequences of error in verification are at least as vital as incorrect conclusions in science or law, verification's methodology resolves doubt by erring on the side of process preservation.

Although numerous examples discussed in this project qualify as evidence that the verifiers presume innocence, the debate is seldom allowed to mature to the point at which such a presumption becomes obvious. In some cases compliance issues have been resolved on the question of treaty language and in others on the question of Soviet intent. Today, although there is evidently widespread evidence that the Soviets regularly violate the 1974 Threshold Test Ban Treaty, the absence of indictments is commonly attributed to

debatable interpretations of monitoring data.<sup>49</sup> In still other cases, the "relevant question" has been changed before an outright presumption of innocence had to be faced. Even Kissinger now acknowledges, for example, that the ABM Treaty was violated.<sup>50</sup> However, by the time that violation was certifiable, it had become fashionable to ask not whether arms control was contributing to stable crisis management, but whether the U.S. would be "better off" (at that point in time) with or without SALT I. Having already deployed impressive new damage limiting capability with their new generation of counterforce ICBMs, the Soviets were on the verge of breaking out of the ABM Treaty.

---

<sup>49</sup>See for example Murray Marder, "Two Dormant Treaties Awaken Dispute Over A-Test Inspection," Washington Post, July 26, 1982, p. 2. Marder cites Administration officials to the effect that "the Soviets have tested weapons up to 300 to 400 kilotons, with no recourse in that treaty to produce incontrovertible proof of violations." See also Jack Anderson, "U.S. Can't Tell if Russia Cheats on Test Ban," Washington Post, Aug 10, 1982, p. c-15. Anderson reports that "Even with the new measuring equipment, the Soviets appear to have exceeded the 150 Kiloton limit at least 11 times since 1978...according to my sources." See also "An Interview with Fred Ikle," Washington Post, Aug 17, 1982, p. 17; and Judith Miller, "Experts Split on Flaws in Pacts Limiting Nuclear Tests," New York Times, July 26, 1982, p. 3.

<sup>50</sup>John Lofton, "Kissinger Responds to Zumwalt Attack," Washington Times, Sep. 15, 1982, p. 3. Here Kissinger is quoted as saying: "On actual violations, I'm familiar with one...that had to do with turning on radar for anti-aircraft weapons, in an ABM mode. They did that, I forget how many times, and we protested."

Measured against a political battle with Congress over abrogating the ABM Treaty, the "better-off" question drove its own answer. The question of proving guilt or presuming innocence was thereby once again sidestepped by the verifiers.

It is ironic that the case for the U.S. presumption of Soviet innocence would become clear not during SALT I but as a result of an international agreement banning toxin weapons. Evidence that the Soviets have violated both the 1972 Biological Weapons Convention and the 1925 Geneva Protocol is virtually overwhelming. Such a conclusion has been drawn by numerous study groups, a variety of foreign governments, and has even been publicly proclaimed by the Reagan Administration. Although it might be an overstatement to say there is no argument about the means of monitoring that are available, the prohibitions are spelled out in the agreements with such clarity that the only question still lingering involves what constitutes proof of a violation. That the U.S. has considered the case insufficient for exercise of the U.N. procedures called for in the 1972 agreement is ironic for a variety of reasons. As discussed in Chapter Two, the U.S. was actively deceived into supporting the Convention in the first

place. The U.N. sponsored agreement contained no verification provisions whatsoever -- only a "pledge" that the parties would "cooperate" with any Security Council investigation initiated by one of the 111 signatories. Until the 1972 agreement, the U.S. had resisted participation in chemical and biological weapons agreements, including the Geneva Protocol, precisely because they lacked effective safeguards.<sup>51</sup> Although the U.S. was a signatory to no such agreement when the Communists falsely accused it of using bacteriological weapons in Korea, however, it was the U.S. that invited a full international investigation of the charges.<sup>52</sup> Yet today, when there is such an agreement on the record, the Soviets, who rejected the American investigation proposal in 1952, publicly scorn provisions for cooperation.

The 1972 Biological Weapons Convention was judged to be adequately verifiable by the U.S. for a number of reasons. In the first place, the Geneva Protocol was perceived to have been effective during World War II in ruling out the use of chemical weapons. More likely, however, such nonuse was attributable to threats of

---

<sup>51</sup>Arms Control and Disarmament Agreements, (Washington, D.C.: Arms Control and Disarmament Agency, 1980), p. 10.

<sup>52</sup>Ibid.

retaliation such as that of President Roosevelt:

Use of such weapons has been outlawed by the general opinion of mankind. This country has not used them, and I hope we never will be compelled to use them. I state categorically that we shall under no circumstance resort to the use of such weapons unless they are first used by our enemies.<sup>53</sup>

Secondly, as discussed in Chapter Two, the U.S. had been persuaded by "Fedora and Tophat," two KGB agents believed to have shifted their allegiance to the U.S., that the Soviets were genuinely interested in the benefits of such an agreement. Thirdly, as President Nixon explained at the time, this was understood to be "the first international agreement since World War II to provide for the actual elimination of an entire class of weapons from the arsenals of nations."<sup>54</sup> The parties had agreed to prohibit not simply a weapon's deployment, as they had in SALT, or its use, as in the Geneva Protocol, but also "not to develop, produce, stockpile, or acquire biological agents or toxins...as well as weapons and means of delivery."<sup>55</sup> On the one hand, biological weapons were regarded as uniquely repulsive to "world public opinion," and thus their use

---

<sup>53</sup>Ibid, p. 120.

<sup>54</sup>Edward Jay Epstein, "Disinformation: Or, Why the CIA Cannot Verify an Arms Control Agreement," Commentary, July, 1982, pp. 22-23.

<sup>55</sup>Arms Control and Disarmament Agreements, p. 122.

would be more likely than other kinds of violations to generate popular outrage. On the other hand, although the agreement's subject matter was of the "less visible" variety, a single discovery would establish noncompliance. As Nixon suggested, the ban was as absolute and clear cut as an agreement could provide.

As discussed in Chapter Two, evidence of the complete invalidity of these assumptions began to emerge when the U.S. discovered Soviet equipment used by Egypt in the 1973 Yom Kippur war -- evidence of a well developed Soviet operational doctrine for chemical warfare. Although cause for concern, the Geneva Protocol had prohibited use of chemical weapons, and the 1972 Convention had banned biological rather than chemical weapons. It was not until 1979, after U.S. intelligence analysts had noticed the continued construction of structures previously identified as biological weapons facilities (animal pens combined with explosive assembly lines behind double fences), that evidence of systematic Soviet violation of the agreements began to trickle in. As the Wall Street Journal has reported:

In 1979, we began to receive reports of an accident at...Military Compound No. 19, leading to an epidemic of anthrax near the Soviet city of Sverdlovsk. The reported symptoms indicated pulmonary [i.e. lung related] anthrax, usually encountered only

among workers in wool-sorting sheds. The Soviets said some ordinary anthrax had been caused by tainted meat and, though the [1972 Biological] convention obligated them to cooperate in any investigation of possible violations...they rebuffed all inquiries.<sup>56</sup>

Although the Soviet accounting of the incident -- that anthrax had been ingested in the form of meat rather than inhaled in the form of gas -- was not disprovable, powerful circumstantial evidence began to corroborate the 1973 and 1979 findings.

As far back as 1976 and continuing over the ensuing years, Hmong tribesmen and other Laotian refugees had reported of "yellow rain" -- mists that were dropped from planes or shot from artillery shells -- causing profuse bleeding and other bizarre symptoms. According to the Wall Street Journal:

We now know that "yellow rain" contains trichothecene toxins derived from molds, banned by the 1972 convention. Poisoning from such toxins is exceedingly rare in most of the world, but was the cause of a stunning epidemic in the Orenburg region of the Soviet Union in the winter of 1943-44. Afghan rebels fighting the Soviets also report poison gas attacks. The cumulative evidence leads inescapably to the conclusion that the Soviets signed the biological weapons convention with every intention of violating it. They have proceeded with research, development and production of biological warfare agents, have tested them in remote battlefields and in fact have apparently adopted them as routine in some military

---

<sup>56</sup>"Whither Arms Control? - II," An Editorial Series, Wall Street Journal, May 20, 1982, p. 7.

situations. Presumably they agreed to the convention for propaganda purposes and to inhibit any Western development of similar weapons. They approached this arms control measure, in short, with total cynicism and utter bad faith.<sup>57</sup>

The May 1982 Wall Street Journal editorial was not without compelling official and unofficial underpinning. Sterling Seagrave's 1981 Yellow Rain: A Journey Through the Terror of Chemical Warfare<sup>58</sup> documented five years of Soviet use of toxin warfare in Southeast Asia. In March 1982, Secretary of State Alexander Haig submitted the first of two State Department reports to Congress on the subject. Haig's report specified that 47 separate attacks by the Soviets, resulting in the deaths of 3000 persons in Afghanistan, had been explicitly documented.<sup>59</sup> At the

---

<sup>57</sup>Ibid.

<sup>58</sup>Sterling Seagrave, Yellow Rain: A Journey Through the Terror of Chemical Warfare (New York : M. Evans and Co., 1981).

<sup>59</sup>Chemical Warfare in Southeast Asia and Afghanistan, Report to the Congress from Secretary of State Alexander M. Haig, Jr., March 22, 1982, Special Report No. 98 (Washington, D.C.: Bureau of Public Affairs, U.S. Department of State). Haig's report was the result of seven years of study. Addressed to the U.N. and the international community at large, the report repeated accusations brought forth in Richard Burt's Nov. 10, 1981 testimony before the Senate Subcommittee on Arms Control and International Operations. Haig cited eyewitnesses, defectors, international organizations, and journalists, including "sensitive information that often pinpointed the time and place of chemical attacks."

same time, Deputy Secretary of State Walter Stoessel, speaking at a Washington press conference, accused the Soviets of "flagrantly and repeatedly violating the treaties governing chemical and biological warfare." Stoessel's comment was the first recorded accusation by a U.S. government official that the Soviets were guilty of an outright arms control violation in the SALT era. Although none of these reports would generate the kind of public disdain theorists had predicted under such circumstances, several American journalists expressed genuine alarm. In particular, John Winters of the Arizona Republic conducted a four month study of the evidence. Winters' own interviews of Afghan tribesmen and refugee camp physicians confirmed all published findings.<sup>60</sup>

Winters' evidence was also persuasive in itself. One Afghan refugee whom he interviewed explained that

---

<sup>60</sup>John Winters, "Deadly Race is Analyzed by 'Republic,'" Arizona Republic, August 8, 1982; John Winters, "Poison Warfare: An Unholy Resurrection;" "Use of Toxic Weapons as old as War Itself;" and "Superpowers are Selective in Picking Lethal Agents," Arizona Republic, Aug. 8, 1982; John Winters, "David vs Goliath;" "U.S. Reportedly Ignored Data on Soviet Poisons;" and "Incident in Urals Spurs U.S. Study of Germ Warfare," Arizona Republic, Aug. 9, 1982; John Winters, "Lethal Alchemy Tested on Afghans;" and "Toxic Weapons Fail to Break Moslem Rebels," Arizona Republic, Aug 11, 1982; John Winters, "Past Horror, Current Fear Restrain U.S.;" and "Toxic - War Buildup Would Cost Billions;" Arizona Sun, Aug. 14, 1982.

"there was heavy bombing, nothing was left; even wet trees caught fire; the gas caused tears to come to the eyes, and some died after great difficulty in breathing." Another explained that after gas was dropped by planes and helicopters, "the people became senseless; some lost their sight; some bled from their noses." Numerous refugees reported that a substance dropped in the village water supply made it turn red. A doctor at the Balkhy Avicenna Hospital in Peshawar, Pakistan mentioned symptoms among his patients similar to those described by refugees, including:

...confusion, severe headaches, blurred vision, vomiting of blood, and bloody diarrhea. Those symptoms would last 24-48 hours, after which most of the victims died. Bodies would swell and blacken. They would begin to decompose quickly, within one to three hours after death. The survivors suffered memory lapse and fatigue.<sup>61</sup>

Winters' reports came from a variety of Afghan refugees all of whom recalled similar incidents and symptoms; these were illiterate tribesmen with a long history of fighting among themselves.

Most of the American media, however, remained skeptical. Though occasionally vociferous on the matter, the U.S. Government has, to this day, never lodged a formal complaint with the Security Council as

---

<sup>61</sup>"Lethal Alchemy Tested on Afghans," p. 2.

prescribed by Article VI of the 1972 agreement. A special U.N. Group of Experts, convened by the General Assembly, also failed to reach conclusions of any kind until the end of 1982 when its final report cited "circumstantial evidence suggestive of the possible use of some sort of toxic chemical substance in some instances." The U.N. report was further weakened by its assertion that vegetation samples bore toxins that "could be attributed to natural causes."<sup>62</sup> The inconclusive report, however, also cited the testimony of doctors in Pakistan refugee camps who said that on several occasions after attacks on villiages "bodies had quickly decomposed, and limbs had separated from each other when touched."<sup>63</sup> These reports were later buttressed by a Soviet army defector who had specialized in chemical warfare in Afghanistan. According to this 19 year old conscript, specially stored chemicals ("smirch") at two of the four Soviet air bases in Afghanistan had contaminated Soviet soldiers on several occasions producing symptoms

---

<sup>62</sup>Michael J. Berlin, "U.N. Unit Finds Evidence of Toxic Arms," Washington Post, Dec. 7, 1982, p. 19.

<sup>63</sup>Aernout Van Lynden, "Soviet Soldier Talks of Chemical Arms Use," Washington Post, Sep. 9, 1982, p. 21.

identical to those described by Winters and the U.N. Report.<sup>64</sup>

The Soviets, of course, vehemently denied all such evidence. Soviet press officer Mikhail Lysenko told Winters, for example, that "if the treaties are being violated, it is the U.S. that is violating them. It is the U.S. that is using chemical weapons in Afghanistan."<sup>65</sup> Vladimir Shustov, a disarmament expert to the Soviet U.N. mission described the charges as "sheer invention from beginning to end," and cited the weak conclusions of the November 1982 U.N. report as support.<sup>66</sup> Shustov went on to argue that the charges were built on "various false statements, rumors, false analyses, and quantitative juggling," all of which constituted "yet another slander."<sup>67</sup> After a second State Department report was published in November 1982, the Soviets advanced an absurd argument to the effect that fungus-producing toxins had colonized spontaneously in Vietnam because competitor fungi had

---

<sup>64</sup>Ibid.

<sup>65</sup>Winters, "Toxic Weapons Fail to Break Moslem Rebels," p. 13.

<sup>66</sup>"Deadly Dose, New Charges About Yellow Rain," Time, Dec. 13, 1982, p. 57.

<sup>67</sup>Louis Halasz "Still No Smoking Gun," Baltimore Sun, Dec. 19, 1982, p. k-1.

AD-A135 439

ARMS CONTROL VERIFICATION: 'BRIDGE' THEORIES AND THE  
POLITICS OF EXPEDIENCY(U) AIR FORCE INST OF TECH  
WRIGHT-PATTERSON AFB OH R J DESUTTER APR 83  
AFIT/CI/NR-83-56D

6/6

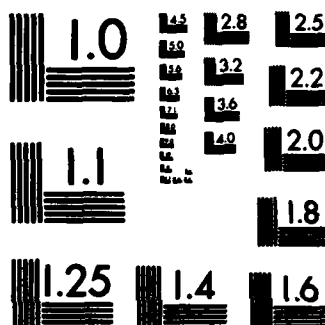
UNCLASSIFIED

F/G 5/4

NL

END

FILMED  
1 84  
DTIC



**MICROCOPY RESOLUTION TEST CHART**  
**NATIONAL BUREAU OF STANDARDS-1963-A**

been capriciously destroyed by American napalm during the Indochina war. Clouds of toxic spores were then swept up by prevailing winds, according to this argument, and blown away from Vietnam, a Soviet ally, into Laos and Cambodia, where the lethal toxins were released by nature on Soviet and Vietnamese enemies.<sup>68</sup>

Members of the media who closely covered the issue -- especially those unfamiliar with SALT compliance debates -- were at a loss to comprehend the public reaction, let alone the leisurely response by the Reagan Administration, to the mounting evidence of Soviet genocide. George Carver, for example, began an article a month after the first Haig report as follows:

One of man's more pronounced characteristics is a reluctance to face uncongenial facts -- particularly facts challenging cherished wishes or beliefs, or facts which (if accepted) dictate unwanted actions or

---

<sup>68</sup>"Evidence from the Battlefield," St. Louis Post Dispatch, Dec. 3, 1982, p. 18. The Soviets have argued that while this combination of natural breeding and American napalm caused the toxic spores in Southeast Asia, a different American plot spread the poisons in Afghanistan. According to this argument (from the Literaturnaya Gazeta, Feb. 2, 1982) the Pakistan Malaria Research Center is a CIA financed effort to breed mosquitoes which "infect their victims with deadly viruses as part of U.S. plans to introduce biological warfare into Afghanistan." See Department of State Bulletin, Oct. 1982, p. 44.

unwelcome changes in patterns of thought or behavior.<sup>69</sup>

Carver went on to cite historical examples of social unwillingness to "face uncongenial facts"; these included: the Holocaust of World War II; western enthrallment with John Reed who paid so little attention to Stalin's liquidation of the Kulaks in the 1920s; the overwhelming evidence of the Gulag Archipelago under Stalin, Khrushchev and Brezhnev and its casual treatment by the western media; the widespread denial that North Vietnam might have a steadily increasing hand in South Vietnam's travail from the mid-1960s on; and the attribution of Cambodian genocide after 1975 to previous American presence there. The very same kind of "rear guard action against the facts" was underway again, noted Carver, this time surrounding debate over "yellow rain."

Much of the criticism leveled against Secretary Haig's report even before it was published [e.g. a New York Times editorial, March 19, 1982] sounds and reads much like the American Tobacco Institute's critiques of the Surgeon General's reports on the health hazards caused by cigarettes.... In this situation [i.e. yellow rain], it is patently ridiculous to engage in nit-picking cavils, implicitly contending that the case should be considered open unless and until the U.S. Government or others can prove it beyond

---

<sup>69</sup>George A. Carver, Jr., "Common Sense and Yellow Rain - I; A Reluctance to Face Facts," Baltimore Sun, April 15, 1982, p. 12.

reasonable doubt as if they were arguing against a constitutionally mandated presumption of innocence in an American court of law, with all the latter's strictures on evidence including the exclusionary rule and Miranda.<sup>70</sup>

Writing for the Wall Street Journal in September 1982, more than a year after his book had been published (and ignored), Sterling Seagrave observed:

Certainly, more than enough scientific evidence has been accumulated to convince even the most stubborn skeptics that some grotesque poison is being used [in Afghanistan and Indochina]. This Spring, a previously skeptical Washington Post editorially praised what it called the first "hard evidence" -- blood and urine samples from casualties of a poison attack in Cambodia. Science magazine drew the same conclusion this June. Nonetheless, the investigation has been hampered by bickering between the State Department and its critics, and in recent weeks seems to have run out of steam.<sup>71</sup>

Seagrave's cynicism was not inappropriate. At least a dozen other countries had conducted their own independent investigations with conclusions compatible with the State Department's. These included extensive study and confirmation by Canada and supporting analyses by France, West Germany, Britain, Norway, Sweden, Denmark, Israel, South Africa, Australia, New

---

<sup>70</sup>Ibid., p. 13.

<sup>71</sup>Sterling Seagrave, "Yellow Rain's Year: 'Like Laughing at Guernica,'" Wall Street Journal, Sep. 16, 1982, p. 30.

Zealand, and China.<sup>72</sup> But while the West temporized its response, the gas attacks continued undiminished. In November 1982, an incident was confirmed on the Thai-Cambodian border while the U.N. team (under the supervision of a Russian member of the secretariat) was conducting its "investigation" in the area. The team subsequently demonstrated what one report called "a distinct lack of enthusiasm for its work and even less enthusiasm for making its findings [published two weeks later] public."<sup>73</sup>

Although the U.N. team had promised to "spare no effort" to ferret out the truth of the matter, its timidity over the issue has frequently been attributed to suspicions about U.S. motives, and the reluctance of third world countries and independent humanitarian agencies to anger the Soviets.<sup>74</sup> According to Paul Gigot, a "Vietnam legacy" casts doubt on any American involvement in the Southeast Asia region. A St Louis Post Dispatch article attributed the muted

---

<sup>72</sup>Ibid, Seagrave adds an unidentified Latin American nation to this list.

<sup>73</sup>"Poisoned Confidence," Wall Street Journal, Nov. 22, 1982, p. 65.

<sup>74</sup>These arguments have been widespread, but see for example Paul Gigot, "Is the U.S. Crying Wolf on Yellow Rain, Or is Everyone Else Ignoring Evidence?" Wall Street Journal, Dec. 14, 1982, p. 60.

international response first, to the fact that "such charges by the zealously anti-Soviet Reagan Administration are automatically greeted with a grain of skepticism....,"<sup>75</sup> and second, to the "absence of physical evidence."<sup>75</sup> Neither of these explanations is particularly convincing. The Administration's supposedly strident anti-communism has thus far been conveyed by no more than a plea for public opinion on the issue. The "physical evidence" argument is simply incorrect. In addition to the plethora of evidence already discussed: human blood, urine and tissue samples; water supplies; photographs; eyewitness accounts; defectors' accounts; 1973 Egyptian army equipment; and vegetation analyses by several different governments from various places where the Soviets are at war, -- the U.S. government produced in November 1982 what any objective analyst would call "hard evidence." According to this Report to Congress:

For the first time we have obtained convincing evidence of the use of mycotoxins by Soviet forces through analyses of two contaminated Soviet gas masks acquired from Afghanistan. Analysis and quantification of material taken from the outside surface of one mask have shown the presence of tricothecene mycotoxin. Analysis of a hose from the second Soviet mask showed the presence of several mycotoxins.... Our

---

<sup>75</sup>"Evidence from the Battlefield," St Louis Post Dispatch, Dec. 3, 1982, p. 18.

suspicions that mycotoxins have been used in Afghanistan have now been confirmed.<sup>76</sup>

The State Department produced not just verbal descriptions of the masks or even pictures of them, but also the masks themselves at a press conference on November 29.

Even with physical evidence, however, many writers and public officials simply refuse to accept the idea that the Soviets have violated an arms control agreement so long as any reasonable doubt or alternative explanation is available.<sup>77</sup> Yet it is in the nature of intelligence work that insufficient facts will be available to eliminate all explanations but the correct one. Reasonable doubt burdens many national security decisions that must nevertheless be made boldly and in a timely manner. The State Department, despite its accumulation of convincing evidence and its occasional proclamations of Soviet guilt, has been anything but bold in its refusal to confront the U.S.S.R. Specifically, the 1972 agreement virtually

---

<sup>76</sup>Chemical Warfare in Southeast Asia and Afghanistan: An Update, Report from Secretary of State George P. Shultz, November 1982 (Washington, D.C.: U.S. Department of State, Special Report No. 84), p.4.

<sup>77</sup>See for example Robert Harris and Jeremy Paxman, A Higher Form of Killing, (London: Chatto and Windus, Ltd., 1982). See also Gene Lyons, "What Rain?" New York Times, March 3, 1982, p. 16.

obligates the U.S. to call an emergency meeting of the other signatories, but the State Department evidently considers this too undiplomatic. Instead, as the Wall Street Journal has stated, "officials are casting around for another country, say Sweden, to assume America's responsibility."<sup>78</sup> The State Department is also using the proof problem as the mechanism by which to sidestep its responsibility.

All of this is particularly alarming in view of the Republican Party's 1980 Platform, which so smugly accused the Carter Administration of negligence for precisely the same cover-up. Although that accusation was essentially correct, at least the Carter Administration had been forthright in articulating its priorities on the matter. When asked, for example, whether a Soviet violation would permit the U.S. to renounce the Convention, the head of Carter's delegation to the Biological Warfare Convention Review Committee once acknowledged that:

The United States unilaterally renounced biological warfare. It would be inconsistent with that policy to use a Soviet violation as a pretext for something we want to see prohibited.<sup>79</sup>

---

<sup>78</sup>"How Much More Yellow Rain?" Wall Street Journal, Sep. 29, 1982, p. 64.

<sup>79</sup>As pointed out in a statement by Senator Jake Garn on the floor of the U.S. Senate. See Congressional Record, Senate, July 1, 1980, p. 59154.

In the same manner, the Reagan Administration has failed to prove the violation of the 1972 Agreement simply because it does not want such a violation proved. This would explain why, for example, the U.S. Embassy in Bangkok had only two staff members devoting only a third of their time to the entire Southeast Asian region while Reagan's State Department was investing so much credibility in its two reports on Soviet biological warfare violations there.<sup>80</sup> Nor is this the only instance in which the current Administration has been accused of hiding behind an epistemological argument when a straightforward political issue was at stake. In the closing statement of his recent NBC Report on the assassination attempt on the Pope, for example, Marvin Kalb asserted the following indictment:

Four months ago we concluded our original report by saying the evidence suggests that either the Russians hatched the plot against the Pope as one desperate way of containing the crisis in Poland or, at a minimum, they knew about it and did nothing to stop it. The evidence now is even more persuasive; and yet in this matter the Reagan Administration is etching no profile in courage -- allowing Italy to stand alone against the fury of the Soviet Union. Indeed some key aides of the

---

<sup>80</sup>Paul Gigot, "Is the U.S. Crying Wolf on Yellow Rain, or is Everyone Else Ignoring Evidence?" According to Gigot, an embassy official asked him rhetorically: "If this is so important, then why don't they assign somebody full time?"

CIA, both here and in Washington, are actively discouraging American newsmen and Italian investigators from pursuing their obvious leads. Why? Surely not because they believe the Russians are innocent. Part of the explanation lies in the ironic fact that many in the U.S. and Western Europe would rather not be provided with proof of Soviet complicity at this time. In their minds that could shatter hopes for detente, trade, and arms agreements.<sup>81</sup>

Proof is difficult enough when one pursues it tenaciously according to an agreed set of procedures. The American legal system requires adversarial courtroom proceedings in which a prosecutor bears not only the burden of proof but also a vested interest in the establishment of proof. It is not a prosecutor's job to be even-handed in his presentation of evidence because legal procedure assumes there is a vested interest on the part of the accused to refute the prosecution. Indeed, by alleviating the defense of the burden of proof, the legal process intentionally simplifies the presentation of counter-evidence. Verifiers, on the other hand, lack not only the agreed procedures for evaluating evidence, but also the vested

---

<sup>81</sup>Marvin Kalb, "The Man Who Shot the Pope: A Study in Terrorism," NBC White Paper, Jan. 25, 1983. The same conclusion is reached by Russell Watson, et. al. "The Plot to Kill John Paul II," Newsweek, Jan. 3, 1983, p. 29. This article contends that "Some people think that proof might do more harm than good." See also Kim Rogal, et. al., "New Twists in the Plot to Kill the Pope," Time, Feb. 7, 1983, p. 31.

interest in establishing proof of guilt. Furthermore, proof under an arms control regime must be more than just "beyond reasonable doubt." Since there is no jury to which both sides submit their case, proof of one's position must be virtually self-evident. Although the biological warfare violations are the only ones ever faced officially by the verifiers, however, it would appear that the U.S. does not know what to do even when the case for noncompliance is self-evident.

It is not even clear whom the Reagan Administration seeks to persuade with the evidence it has presented thus far. Is it the news media? Is it the governments of foreign countries? Is it Congress, the American people, or the U.N. General Assembly? Or is the absence of agreed proceedings so debilitating that the evidence must simply find its own course? These are questions without answers, because they were assumed away or ignored during the evolution of technical-legal bridge theories. It is not only impossible to discern what constitutes "adequate proof" of an "adequately verifiable" agreement, or who must be convinced of that proof; it is also unclear who bears responsibility for making the argument. An independent Verification and Analysis Bureau may at one time have borne such prosecutorial responsibility, but since the

Warnke purge of that function, no similar vested interest has existed. It is true that the Reagan White House ordered the Bureau's reactivation, but evidently ACDA resisted that decision sufficiently to nullify the President's desires. There are now seven people assigned to the Bureau with two professional staff persons working on verification, instead of the over 133 who were assigned under Amrom Katz.<sup>82</sup> Thus the problem remains. The verifiers have a greater vested interest in process preservation than in prosecution. It is like a court of law which not only lacks a jury but also has two defense attorneys arguing the case.

The analogy is not an altogether facetious one. It suggests that the U.S. and U.S.S.R. share a common interest in arms control after all. For the U.S., the difference between "crises" in national security terms and "compliance questions" in verification terms, involves an assessment of what can be done about some new threat at hand. With or without security agreements in place, the Soviets would have built SS-19s and dropped yellow rain on their various third world enemies; with or without agreements, there was little the U.S. could have done about either of these

---

<sup>82</sup>"Arms Control and the Permanent Government," National Security Record (Washington, D.C.: The Heritage Foundation, No. 42., Feb. 1982), p. 3.

actions. But the presence of agreements enabled legalistic questions to obscure the reality of American impotence in both cases. Soviet interests were therefore served by the "legality" conferred upon their actions, while American interests were served by arms control's palliative effect on new threats that had to be tolerated. In political terms, questions about conceptual ambiguity and proof of noncompliance are therefore more than just prohibitively difficult; they are often conveniently difficult as well. The absence of irrefutable proof permits avoidance of those questions to which the answers are politically costly. Having institutionalized imperfect mechanisms of enforcement, arms control thereby makes a virtue out of uncertainty: compromises that "enable" negotiation "impede" implementation.

The seemingly boundless elasticity of compliance policy therefore bears the considerable weight of bridge theory's anomalies. Through a malleable set of enforcement standards, verification excuses political retreat whenever the defense of U.S. security interests appears difficult or painful. In this sense -- and in this sense only -- arms control contributes to the avoidance of bilateral confrontations. It sanctions the substitution of technical-legal logic for

political-strategic logic. By placing the closed society's ambiguity and deception in a different analytical framework, arms control therefore obscures the problems that it purports to resolve. The same ratchet effect that characterized the evolution of bridge theories throughout the years of negotiation carries on of its own momentum through the years of implementation. Compromises that are necessitated by fatuous bridges across a broad political chasm may appear acceptable as a result of expedient redefinitions of compliance, but the illusion is a dangerous one that has only begun its return home to roost.

## Chapter IX

### Conclusion

Part One of this project described a bilateral political chasm of historically unprecedented dimensions between Soviet and American approaches to security. Part Two reviewed the evolution of a technical and legal logic purporting the capacity to discipline arms competition between these two states -- despite their conflicting visions of security -- in a mutually beneficial manner. Part Three examined the various experiments with negotiated security that have been guided by this technical-legal logic, and discovered its principal contribution to competition in the accommodative power of American compliance policies. Verification -- the political embodiment of technical-legal approaches to security -- is neither a discipline nor a bridge to mutual security. It is a belief system that restructures traditional "art of the possible" conflicts with its own self-sustaining logic. Although its vocabulary and grammar appear technical and legal in nature, its solutions to

traditional political problems invariably serve nontraditional interests.

Characteristic of its self-sustaining nature, verification empowers its own evaluators -- decision makers who, partly because of ideals to which they subscribe and partly because of bureaucratic inertia, make policies that preserve the legitimacy of their newfound power. As a result, this newly empowered community has assessed a Soviet arms buildup of previously unimagined magnitude, and found it to be compatible with agreements that rule out anything comparable for the U.S. Part Three's review of these compliance decisions demonstrated their tautological character. Agreements designated as "adequately verifiable" during negotiations are then "verified" by interpretations that accommodate Soviet behaviors that would have taken place with or without the agreement. Verification "facilitates threat assessment," as promised by bridge theories, by defining all Soviet activities as compliance and all compliances as unthreatening. According to this logic the Soviets have never violated an arms control agreement, which also fulfills the theories' prediction that adequate verification would "deter cheating."

As discussed in Part Three, the number of

explanations according to which Soviet noncompliance can be construed as compliance is seemingly limitless. Shortcomings in monitoring, ambiguities in wording, restructurings of the "relevant question," and appeals to the logical difficulties of proof, all serve both to sustain arms control's superficial efficacy to date and to preserve the decision making power of the verifiers. Clearly arms control thereby heightens more than it diminishes the exploitability of Soviet secrecy and deception. At the same time, arms control has intensified the vulnerability of the open democracies to their penchant for wishful thinking. Answering the principal inquiry that has guided this project, the prediction that technical-legal control devices would bridge the Soviet-American security chasm was simply flat wrong.

That the theory survives intact today is a testimony to its built-in capacity for self-preservation. The same logic that first said verification must be "negotiable" to sustain the process, later demanded that compliance standards be "flexible" to sustain the process. Deification of "the process," in turn, is justified by a myth system that equates process preservation with traditional American peacekeeping ideals. This myth validated the logic

that unilateral American security concerns need not be associated with the governance of compliance policies, but the logic was highly illusory. Even if process preservation were the functional equivalent of peacekeeping, peacekeeping is not a higher American interest than national security. Yet not once has the U.S. government seized the initiative in formally publicizing an actual or potential Soviet violation. In every instance the government has simply reacted to press reports, and usually then only to rationalize Soviet behavior. The resultant impression, that Soviet compliance vindicates American participation in past, present, and future agreements, has generated an unwarranted public confidence in arms control for which the government has only itself to blame.

The suggestion that arms control has served mutual Soviet and American security interests sufficiently to justify its continuation under present ground rules is an unfortunate, occasionally even dishonest, portrayal of reality. Official policies that were guided by political expediency, however, have created a number of pernicious effects. First, they unburden verification theorists of responsibility for a logic that has been oversold to date. Secondly, they support demands by the same theorists for still greater risks for the

sake of arms control. Thus Herbert Scoville offers the seemingly anachronistic gospel of the bridge theorists in support of today's nuclear "freeze" movement:

...it should be understood that satisfactory verification of an agreement to freeze or reduce nuclear weapons does not require that any violation, no matter how insignificant, has to have a high probability of detection as some who wish to foreclose any arms limitations would like the public to believe. When we have 2000 strategic delivery vehicles, the secret Soviet production of 100 missiles is not a security risk.<sup>1</sup>

Scoville's argument is absurd, of course, for a number of reasons that have been discussed in this project. In the first place, one hundred SS-18s would by itself represent three times the deliverable megatonnage of the entire Minuteman force. Secondly, if this kind of added Soviet capability is "not a security risk" to the U.S., then why would the Soviets feel so threatened by American missiles at present?<sup>2</sup>

---

<sup>1</sup>Herbert Scoville, Jr., "Ex-CIA Official Says Nuclear Weapons Freeze Could be Verified," Los Angeles Times, Apr. 11, 1982, p. 24.

<sup>2</sup>The idea that the Soviets could build a hundred undetected missiles without upsetting the strategic balance, an integral assumption behind the pro-SALT II argument, is not a new one. See for example, Les Aspin, "The Verification of the SALT II Agreement," Scientific American, 240 (Feb. 1979), pp. 38-45. See also the response to this argument in William R. Van Cleave's SALT II testimony before the Senate Armed Services Committee, Congressional Record, Oct 29, 1979, p. 15341.

Third, there are the familiar judgmental ambiguities that are not addressed. If one hundred missiles are tolerable, then what basis is there for argument about 150, 175 or 200? Who would make such judgments? How would the differential between what is and is not a security risk be proved even if it were detected? Would the U.S. abide by this "freeze" so long as only insignificant violations, like the addition of 3000 deliverable megatons, were underway? By taking the expedient route to compliance problems, and by encouraging the public to believe what they "want to believe" about compliance, official policy has made arguments like Scoville's sound irrefutably plausible. This not only compels the U.S. to continue its well worn path to arms control, but also guarantees that when further agreements do come about, Soviet noncompliance will continue alongside American accommodation.

Arms control verification standards that would have been completely unacceptable to the U.S. when equal confidence in compliance was deemed essential, have become a reality during the SALT years for precisely this reason. The ratchet effect is built-in to the negotiation of such standards as well as to the implementation phase of agreements. It is also an

integral if unstated assumption of modern arms control that compliance decisions, once made, are fixed for all time. It is understood, for example, that even if the Reagan Administration wanted to confront the Soviets on SALT I violations or to abrogate the ABM Treaty -- which it clearly does not -- the case would be nearly impossible now that several administrations have called those activities compliances. Senator Jackson once observed, during the 1975 Schlesinger hearings, that unenforced legal provisions lose their power to bind judgment:

We must move earlier...before they get title to the new advantage by adverse possession. We have a legal expression for it, laches; if you sleep on your rights, after a while you lose them.... [T]he longer we delay, the greater the difficulty in getting those misunderstandings worked out.<sup>3</sup>

Even though Jackson's comprehension of the problem was insightful, why should the "laches" doctrine be applicable to international law when other Western legal standards, such as "reasonableness," are not? To reverse the current adverse trends in American security that are generated by arms control, the U.S. must reject such unwritten restraints on policy. There is

---

<sup>3</sup>U.S. Congress, Senate, Subcommittee on Arms Control of the Committee on Armed Services, Soviet Compliance with Certain Provisions of the 1972 SALT I Agreements, 94th Congress, 1st Session, Mar. 6, 1975, p. 22.

no reason whatsoever why such impediments to enforcement must be assumed by the Reagan Administration. The notion that compliance to date has been adequate is a debilitating handicap from which to conduct further negotiations of any kind. The public's education as to the difference between realities and myths in arms control must begin with a direct acknowledgement of past Soviet behavior -- even if it also requires acknowledgement of errors in judgment that seemed appropriate at the time they were made. President Reagan could expect, naturally, to be challenged by the media on the basis of his "strident anti-communism" just as he was when Soviet violations of the biological warfare convention were recognized by the State Department. But there are solid grounds on which he could reverse such criticism.

In the first place, the American public (which according to polls cited in Part One does not "trust" the Soviets in the first place) is capable of recognizing the forced arguments that have rationalized Soviet behavior as compliance -- if these arguments are fully exposed. It is a President's responsibility to articulate threats to national security, and future negotiations should be based on informed popular understanding of the past record. Secondly, it is a

pillar of verification's enforceability argument that an informed public will react vociferously to Soviet noncompliance. The President should advise his critics that this is an incorrect assumption if he is not allowed to inform the public of questionable compliance to date. Thirdly, because so much time has already passed since these violations occurred, the President need only explain that response has been delayed until now because it was hoped that the Soviets would correct their behavior. An effective forum for the presentation of these arguments might occur during ratification hearings for his next key appointment to the arms control bureaucracy. If his candidate were an expert on such matters, a public hearing would present a valuable opportunity for an airing of the record. In one way or another the public must hear the argument in clear and understandable terms before one more agreement is undertaken.

Furthermore, a serious effort must be undertaken to depoliticize the compliance adjudication process. This can only begin after a full and open debate on the extent to which past judgments have been the product of political values and preferred realities. One positive step in this direction would be to declassify the proceedings of the Standing Consultative Commission,

which were initially classified at Soviet insistence. The argument that private diplomacy in such matters is essential is a weak one at best, but there is no reason whatsoever why past discussions and evidence cannot be made public. Future SCC meetings could then remain private for perhaps three to six months. If intelligence information can be shared with the Soviets at these meetings, there is no reason why it cannot also be shared with the American people, so that they can draw their own conclusions as well. Secrecy in SCC proceedings exacerbates the relevance of societal closure for the Soviets, facilitates the behind scenes accommodations by the verifiers, and rules out bureaucratic accountability to the democratic process. If past judgments have been well reasoned, there should be no basis for current resistance to their disclosure.

As discussed throughout this project, arguments like Scoville's would "hold water" if the Soviet Union were closed for the traditional cultural reasons to which their secrecy is often so innocently attributed. If this were the case, then NTM would permit reasonable confidence in well worded agreements; and better means of monitoring would justify still more imaginative approaches to negotiated restraints. In the case of the Soviet Union, however, societal closure is a

strategic asset that is exploited to the hilt by the assumptions upon which American negotiating strategies and compliance policies are based. Since the U.S.S.R. is not just closed but also strategically closed, since Soviet policies are primarily designed to revolutionize international law, and since arms control commits the U.S. to genuine restraints on its own national security, NTM by itself can never be "good enough" to justify an agreement. Even the best monitoring capability is meaningless unless detected violations generate prompt and resolute reactions by the U.S. It is therefore pointless to talk about the "risk" of detection for the Soviets unless they expect some negative consequence to follow that detection. Laxity in American compliance policies has unburdened the Soviets of any such anxiety. This is among the most unforgivable national security mistakes the U.S. has made since 1940.

With or without arms control, this sedative mindset must be exposed for what it is and prohibited by entirely new mechanisms for compliance adjudication if future agreements are pursued. It is beyond the scope of this project to specify in precise detail what these new control mechanisms should look like, but several general guidelines, if followed, would produce

clear improvements. First, the decision making process that governs the formulation of compliance policy must be completely disassociated from the negotiation process, so that vested interests and self-fulfilling prophecies can no longer characterize verification judgments. Secondly, compliance decision making should be either separated from Executive Branch jurisdiction altogether or placed above domestic political interests, in the same manner as the Federal Reserve Board and the Justice Department. In one way or another the lure of electoral politics must be rendered less relevant so that the logic of the question at hand dominates over the interests of expediency.

Several analyses have suggested that an increase in the role of Congress would offset the vested interest of an administration in preserving an agreement.<sup>4</sup> William Harris has recommended a "SALT safeguards program" by which congressional

---

<sup>4</sup>The Pike Congressional Committee reported in 1975, for example, that "The spectre of important information, suggesting Soviet violation of strategic arms limitations, purposely withheld for extended periods of time from analysts, decision makers, and members of Congress, has caused great controversy within the Intelligence Community." Cited by Senator Jake Garn, "The Suppression of Information Concerning Soviet SALT Violations by the U.S. Government," Policy Review, Summer 1979, pp. 30-31. See also Jack Kemp, "Congressional Expectations of SALT II," Strategic Review, Winter, 1979, pp. 19-20.

appropriations would be earmarked for intelligence community and defense department interactions in response to noncompliance.<sup>5</sup> Harris' suggestion, by which Congress empowers Executive Branch responses not currently available, is similar to Fred Ikle's 1961 suggestion for "enabling legislation" enacted at the time Congress ratifies an arms control treaty.<sup>6</sup> Yet both of these suggestions would leave compliance judgments in the hands of the same Executive Branch officials who negotiated the original agreement, which would leave unattended the problems of vested interests, self-fulfilling prophecy, and political expediency. Although Ikle goes on to suggest that such adjudicating power in the hands of a special committee of Congress might increase the likelihood of prompt reaction to an evasion, there is really no reason to assume that congressmen would be more "above politics" than their Executive Branch counterparts.<sup>7</sup> Violations would remain as likely as today because the Soviets

---

<sup>5</sup>William R. Harris, "A SALT Safeguards Program," in William C. Potter, ed., Verification and SALT: The Challenge of Strategic Deception (Boulder: Westview Press, 1980), p. 133.

<sup>6</sup>Fred Charles Ikle, "After Detection -- What?" Foreign Affairs 39 (Jan. 1961), p. 218.

<sup>7</sup>Ibid. Here Ikle refers to a "Joint Committee on Observance of Arms Controls."

could still expect partisan conflict and public quarrelling about the multiple meanings of a monitored event or an agreement's wording.

Clearly some Legislative-Executive partnership that utilizes enabling legislation but still depends on less politicized decision making is in order. Such decision making might be more reliable if a committee system like Ikle's were appointed by both houses of Congress and by the President. For example, a nine person "Commission on Compliance Adjudication" could be created with two members being appointed by each party in the House and Senate (two-thirds majorities required in each case), and one by the President. The five appointing authorities could then replace their appointees at any time, but the commissioners would serve indefinitely otherwise. The commission would then give guidance to SCC delegations and order the implementation of whatever enabling legislation accompanies a treaty's ratification. Ratification could be tied to a carefully established set of interpretations agreed to by the President and Congress; these interpretations, of each ambiguous phrase of an agreement, would represent "instructions" to the commission. Whether the Soviets agreed to these same interpretations or not, domestic American law

would prohibit continued American compliance unless Soviet compliance conformed with these provisions. Unlike the current decision making process, a public record would be required to document the logic on which compliance or noncompliance judgments are made. The commission could be empowered to task intelligence agencies for competitive analyses and interpretations and to summon testimony from SCC delegates as well, so that the "Soviet side" of an issue is not ignored. Such a commission would be far more responsive to Congress, to the American court system, and to the electorate than what exists today. Some evidence on which decisions are made may be inappropriate for publication, but this would be a decision made by the commission. The public record on any decision could also include dissenting opinions.

Furthermore, the choices available in response to a violation, or even a suspected violation, must be broadened to include more than just toleration of the infraction or abrogation of a treaty. Ikle has suggested a distinction between "restorative measures" and "punitive measures." Both would permit a broad range of actions while leaving the outlines of an agreement intact.<sup>8</sup> Restorative measures are those that

---

<sup>8</sup>Ibid., pp. 214-218. The discussion that follows cites logic from these pages as well.

restore the situation that would have existed without the agreement -- "if the violator resumes testing, the injured country would do likewise..., if the violator rearms, his opponent will rearm to the same extent." Punitive measures go beyond restoration of the pre-agreement balance. A \$20 billion increase in one's defense budget, for example, would "fine" the violator by the same amount if he follows suit, or leave him relatively weaker if he does not. Clearly, this would require a willingness to sacrifice on the part of the U.S. as well, but this is the paradox of arms control theory: if one is unwilling to engage in arms racing, arms control is not an attractive alternative to one's opponent. The U.S. must disabuse itself of the notion that peacekeeping is immune from the "no free lunch" maxim.

The cursory recommendations for corrective actions in this Chapter are speculative suggestions for further study. The overriding conclusions from which they emanate are that current guidelines to security negotiations have failed, that the chasm described in Part One remains unbridged, that American security has declined and will continue to decline as a result of addiction to these guidelines, and that it is time for something radically different if national security

remains the principal object of public policy. These conclusions are not speculative. They derive from this project's analysis of the security problem in being, the assumptions on which new approaches to that problem are based, and an evaluation of the validity of those assumptions in the practice of arms control. That those assumptions are invalid should be crystal clear no matter how much one might wish otherwise. Although arms control has failed dismally as a result of these oversold beliefs, it is evident that political pressures necessitate its continuation. If the "conservative" American administration in place today fails to reverse the guidelines in being, American security faces a long and unpromising future, in which the preservation of "peace" and the enslavement to a process, subordinate the very purposes for which peace has value.

## BIBLIOGRAPHY

### Books and Articles in Books

Acheson, Dean. Power and Diplomacy. New York: Atheneum, 1970.

Ansberry, William F. Arms Control and Disarmament: Success or Failure? Berkeley: McCutchan Publishing Corp., 1969.

Arms Control: A Survey and Appraisal of Multilateral Agreements. Stockholm International Peace Research Institute. London: Taylor & Francis Ltd., 1978.

Aronowitz, Dennis S. Legal Aspects of Arms Control Verification in the United States. New York: Columbia University, 1965.

Barnet, Richard J. The Giants, Russia and America. New York: Simon and Schuster, 1977.

\_\_\_\_\_. "Inspection: Shadow and Substance." In Security in Disarmament. Edited by Richard J. Barnet and Richard A. Falk. Princeton: Princeton University Press, 1965.

Bechhoeffer, Bernhard G. Postwar Negotiations for Arms Control. Washington, D.C.: The Brookings Institution, 1961.

Berinati, Vincent J., and Henry, James H. A Comparison of the Characteristics of Three Sampling Schemes for the Verification Inspection of Certain MX ICBM Systems. Arlington: Institute for Defense Analysis, 1980.

Berman, Harold J., and Maggs, Peter B. Disarmament Inspection Under Soviet Law. Dobbs Ferry: Oceana Pub. Inc., 1967.

- Braithwaite, R. B. Scientific Explanation. Cambridge: University Press, 1968.
- Brennan, Donald G., ed. Arms Control, Disarmament and National Security. New York: George Braziller, 1961.
- Brodie, Bernard. Strategy in the Missile Age. Princeton: Princeton University Press, 1959.
- Bull, Hedley. The Anarchical Society. New York: Columbia University Press, 1977.
- \_\_\_\_\_. The Control of the Arms Race. New York: Frederick A. Praeger, 1961.
- Carr, E. H. The Twenty Years Crisis 1919-1939: An Introduction to the Study of International Relations. London: The Macmillan Company, 1939.
- Clark, Grenville, and Sohn, Louis B. World Peace Through World Law. Chicago: World Without War Publications, 1973.
- Clarke, Duncan L. Politics of Arms Control. New York: The Free Press, 1979.
- Collins, John M. U.S.-Soviet Military Balance, Concepts and Capabilities 1960-1980. Washington: McGraw-Hill, 1980.
- Crawford, Alan; Cleminson, F. R.; and Gilman, Ernest. A Quantitative Working Paper on the Compendium of Arms Control Verification Proposals. Ottawa: Operational Research and Analysis Establishment, June 1980.
- Dallin, Alexander, ed. The Soviet Union and Disarmament. New York: Frederick A. Praeger, 1964.
- Dewey, John. "Liberty and Social Control." In Problems of Men. John Dewey, ed., New York: Philosophical Library, 1946.
- Dupuy, Trevor N., and Hammerman, Gay M. A Documentary History of Arms Control and Disarmament. New York: R. R. Bowker Co., 1973.
- Enthoven, Alain C., and Smith, K. Wayne. How Much is Enough? New York: Harper & Row, 1972.

- Falk, Richard A. "Inspection, Trust, and Security During Disarmament." In Security in Disarmament. Edited by Richard J. Barnet and Richard A. Falk. Princeton: Princeton University Press, 1965.
- Falk, Stanley L. The Environment of National Security. Washington, D.C.: Industrial College of the Armed Forces, 1968.
- Forbes, Henry W. The Strategy of Disarmament. Washington, D.C.: Public Affairs Press, 1962.
- Fowler, W.S. The Development of Scientific Method. New York: The Macmillan Co., 1962.
- Godson, Roy, ed. Intelligence Requirements for the 1980's: Counter-Intelligence. Washington, D.C.: National Strategy Information Center, 1980.
- \_\_\_\_\_. Intelligence Requirements for the 1980's: Covert Action. Washington, D.C.: National Strategy Information Center, 1981.
- \_\_\_\_\_. Intelligence Requirements for the 1980's: Elements of Intelligence. Washington, D.C.: National Strategy Information Center, 1979.
- Graham, Daniel O. Shall America Be Defended? New Rochelle: Arlington House, 1979.
- Grodzius, Morton, and Rabinowitch, Eugene, eds. The Atomic Age. New York: Basic Books, Inc., 1963.
- Hadley, Arthur T. The Nation's Safety and Arms Control. New York: The Viking Press, 1961.
- Hanrieder, Wolfram F. Arms Control and Security: Current Issues. Boulder: Westview Press, 1979.
- Henkin, Louis B. Arms Control and Inspection in American Law. Westport: Greenwood Press, 1958.
- Henkin, Louis B., ed. Arms Control, Issues for the Public. Englewood Cliffs: Prentice-Hall, Inc., 1961.

- Ikle, Fred C. "Introduction: The American People and Arms Control." In Contrasting Approaches to Strategic Arms Control. Edited by Robert L. Pfaltzgraff, Jr. Lexington: Lexington Books, 1973.
- Jacobson, Harold K., and Stein, Eric. Diplomats, Scientists, and Politicians. Ann Arbor: The University of Michigan Press, 1966.
- Johansen, Robert C. Toward a Dependable Peace: A Proposal for an Appropriate Security (WOMP). New York: Institute for World Order, 1978.
- Kalb, Bernard, and Kalb, Martin. Kissinger. Boston: Little, Brown and Co., 1974.
- Katz, Amrom H. Verification and SALT, the State of the Art and the Art of the State. Washington: The Heritage Foundation, 1979.
- Kaufmann, William W. "The Requirements of Deterrence." In William W. Kaufmann, ed., Military Policy and National Security. Princeton: Princeton University Press, 1956.
- Kinter, William R., and Pfaltzgraff, Robert L., Jr., eds. SALT Implications for Arms Control in the 1970's. Pittsburgh: University of Pittsburgh Press, 1971.
- Kissinger, Henry A. The White House Years. Boston: Little, Brown & Co., 1979.
- Klass, Philip. Sentries in Space. New York: Random House, 1971.
- Kohler, Foy D.; Goure, Leon; and Harvey, Mose L. The Soviet Union and the October 1973 Middle East War, the Implications for Detente. Miami: Center for Advanced International Affairs, 1974.
- Kuhn, Thomas S. The Structure of Scientific Revolutions. Chicago: The University of Chicago Press, 1970.
- Labrie, Roger P., ed. SALT Handbook. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1979.

- LaFeber, Walter. America, Russia, and the Cold War 1945-1975. 3rd ed. New York: John Wiley and Sons, Inc., 1976.
- Lee, William T. Understanding the Soviet Military Threat: How the CIA Went Astray. Washington, D.C.: National Strategy Information Center, 1976.
- McVitty, Marion H. Preface to Disarmament. Washington, D.C.: Public Affairs Press, 1970.
- McWhinney, Edward. Aerial Piracy and International Law. Dobbs Ferry: Oceana Publications, Inc., 1971.
- Meiman, Seymour, ed. Disarmament, Its Politics and Economics. Boston: The Academy of Arts and Scientists, 1962.
- Morgenthau, Hans. Politics Among Nations. New York: Alfred A. Knopf, Inc., 1954, 1948.
- \_\_\_\_\_. Scientific Man and Power Politics. Chicago: University of Chicago Press, 1946.
- Nasbe, Rodrick P. "Verification of SALT Agreements." Masters thesis, Virginia University, 1978.
- Newhouse, John. Cold Dawn: The Story of SALT I. New York: Holt, Rinehart and Winston, 1973.
- Niebuhr, Reinhold. Moral Man in Immoral Society. New York: Charles Scribner's Sons, 1947.
- Nitze, Paul H. "Detente and American Survival." In Defending America. Introduction by James R. Schlesinger. New York; Basic Books, Inc., 1976.
- Noel-Baker, Philip. The Arms Race. London: Atlantic Books, 1958.
- Panofsky, W. K. Arms Control and SALT II. Seattle: University of Washington Press, 1979.
- Persky, Merle J. Further Investigations of Rocket Launch-Phase Inspection Techniques Instrumentation. Cambridge: Block Engineering, Inc., 1969.

- Platt, Alan. The U.S. Senate and Strategic Arms Policy, 1969-1977. Boulder: Westview Press, 1978.
- Ranger, Robin. Arms and Politics 1958-1978. Toronto: Gage Publishing Limited, 1979.
- Rood, Harold W. Kingdoms of the Blind. Durham: Carolina Academic Press, 1980.
- SALT II and American Security. Cambridge: Institute for Foreign Policy Analysis, Special Report, 1980.
- Schelling, Thomas C., and Halperin, Morton H. Strategy and Arms Control. New York: The Twentieth Century Fund, 1961.
- Scoville, H., Jr. "A Leap Forward in Verification." In SALT: The Moscow Agreements and Beyond. Edited by M. Willrich and J. B. Rhineland. New York: Free Press, 1974.
- Seaborg, Glenn T. Kennedy, Khrushchev, and the Test Ban. Berkeley: University of California Press, 1981.
- Smith, Gerard. Doubletalk: The Story of SALT I. New York: Doubleday, 1980.
- Snow, Donald M. Nuclear Strategy in a Dynamic World. University: The University of Alabama Press, 1981.
- Snyder, Glenn C. "The Balance of Power and the Balance of Terror." In Dean G. Pruitt and Glenn C. Snyder, eds., Theory and Research on the Causes of War. Englewood Cliffs: Prentice-Hall, 1969.
- Sobel, Lester A., ed. Disarmament and Nuclear Tests 1960-63. New York: Facts on File, 1964.
- Strategic Disarmament, Verification and National Security. Stockholm International Peace Research Institute. London: Taylor & Francis Ltd., 1977.
- Study "Riposte." Responses to Violations of Arms Control and Disarmament Agreements. Washington: Historical Evaluation and Research Organizations, April 12, 1964.
- Talbott, Strobe. Endgame. The Inside Story of SALT II. New York: Harper & Row, 1979.

The Trial of the U-2, Exclusive Authorized Account of Court Proceedings of Francis Gary Powers. Introduction by Harold J. Berman. Translation World Publishers, 1960.

Van Cleave, William R. "The Nuclear Weapons Debate." In American Defense Policy. Edited by Richard G. Head and Ervin J. Rokke. Baltimore: The Johns Hopkins University Press, 1973.

\_\_\_\_\_. "Political and Negotiating Assymetries: Insult in SALT I." In Contrasting Approaches to Strategic Arms Control. Edited by Robert L. Pfaltzgraff, Jr. Lexington: Lexington Books, 1973.

Wainhouse, David W. Arms Control Agreements, Designs for Verification and Organization. Baltimore: The Johns Hopkins Press, 1968.

Wiesner, Jerome B. "Inspection for Disarmament." In Arms Control Issues for the Public. Edited by Louis B. Henkin. Englewood Cliffs: Prentice-Hall, Inc., 1961.

Wright, Martin. Systems of States. London: London School of Economics, 1977.

Willrich, Mason, and Rhineland, John B., eds. The Moscow Agreements and Beyond. London: Collier Macmillan Pub., 1974.

Wohlstetter, Albert. "Racing Forward or Ambling Back?" In Defending America. Introduction by James R. Schlesinger. New York: Basic Books, Inc., 1976.

Wright, Michael. Disarm and Verify. New York: Frederick A. Praeger, 1964.

Zile, Zigurds L.; Sharlet, Robert; and Love, Jean C. The Soviet Legal System and Arms Inspection. New York: Praeger Publishers, 1972.

#### Journal Articles

Adelman, Kenneth L. "Fear, Seduction and Growing Soviet Strength." Orbis 21 (Winter 1978): pp. 1743-65.

- "Arrays in Space to Pinpoint Tactical Targets."  
Electronic Warfare: Defense Electronics 9  
(September-October): p. 31.
- Barber, Stephen. "Noise Interferes." Far Eastern Economic Review, February 25, 1977, pp. 27-28.
- \_\_\_\_\_. "Watching Brief on the World." Far Eastern Economic Review, February 25, 1977, pp. 26-27.
- Barlow, Jeffrey G. "Western Europe and the NATO Alliance." Journal of Social and Political Studies (Spring 1979), pp. 3-15.
- Bates, E. "National Technical Means of Verification." Rusi (May 1978), pp. 12-14.
- Behuncik, John G. "Examining SALT Violations and the Problems of Verification." Heritage Foundation, June 6, 1976, pp. 1-22.
- "Big Bird--America's Spy in Space." Space World (January 1978), p. 26.
- Blechman, Barry M., and Levinson, Stephanie E. "Soviet Submarine Visits Cuba." United States Naval Institute Proceedings (September 1975), pp. 30-39.
- Burt, Richard. "A Glass Half Empty." Foreign Policy (Fall 1979), pp. 33-49.
- \_\_\_\_\_. "The Scope and Limits of SALT." Foreign Affairs (July 1978), pp. 751-70.
- Caldwell, Lawrence T. "Soviet Attitudes to SALT." Adelphi Papers, No. 75. London: The Institute for Strategic Studies, 1971.
- Colby, William E. "Verifying SALT." Worldview (April 1979), pp. 4-7.
- Douglass, Joseph D., Jr. "The Growing Disinformation Problem." International Security Review 6 (Fall 1981): pp. 333-53.
- "Five Expert Groups Meet to Study Various Disarmament Issues." U.N. Chronicle (April 1981), p. 15.
- Frye, A. "Strategic Restraint, Mutual and Assured." Foreign Policy 27 (Summer 1977): pp. 3-24.

- Garn, Jake. "The SALT II Verification Myth." Strategic Review (Summer 1979), p. 23.
- \_\_\_\_\_. "The Suppression of Information Concerning Soviet SALT Violations by the U.S. Government." Policy Review (Summer 1979), pp. 30-31.
- Gelb, Leslie H. "A Glass Half Full." Foreign Policy 36 (Fall 1979), pp. 21-33.
- Graham, Daniel O. "The Intelligence Mythology of Washington." Strategic Review (Summer 1976), pp. 59-66.
- Gray, Colin S. "Nuclear Strategy: A Case for a Theory of Victory." International Security, 4, (Summer 1979), pp. 54-87.
- Greenwood, Ted. "Reconnaissance and Arms Control." Scientific American 228 (February, 1971): pp. 14-25.
- \_\_\_\_\_. "Reconnaissance, Surveillance and Arms Control." Adelphi Papers, No. 88. London: The Institute for Strategic Studies, 1972.
- Helm, Robert, and Westervelt, Donald. "The New Test Ban Treaties: What Do They Mean? Where Do They Lead?" International Security 1 (Winter 1977), pp. 162-78.
- Herz, John. "Political Realism Revisited." Paper delivered to the 21st Annual Convention of the International Studies Association, Los Angeles, California, March 20, 1980.
- Hopkins, Mark. "The Sverdlovsk Incident." New Leader, June 2, 1980, pp. 11-12.
- Hudson, R. D., and Hudson, J. W. "The Military Applications of Remote Sensing by Infrared." Proceedings of the Institute of Electrical and Electronics Engineers 63 (January 1975): pp. 104-28.
- Ikle, Fred C. "After Detection--What?" Foreign Affairs 39 (January 1961), pp. 208-220.
- "Interview with Henry Kissinger." The Economist, February 3, 1979, pp. 17-22.

- Jervis, Robert. "Deterrence Theory Revisited." World Politics, Vol. 31, No. 2 (January 1979), p. 3.
- Jordan, D. "Looking in on U.S." Environment (August 1977), pp. 1-11.
- \_\_\_\_\_. "Surveilling the Earth." Current (December 1977), pp. 34-41.
- Kahn, David. "Cryptology Goes Public." Foreign Affairs 58 (Fall 1979): pp. 141-159.
- Kemp, Jack. "Congressional Expectations of SALT II." Strategic Review (Winter 1979), pp. 23-29.
- Lee, John F. "Opening 'Window' for Arms Control." Foreign Affairs 58 (Fall 1979), pp. 121-140.
- Lee, William T. "Soviet Defense Spending." Strategic Review (Winter 1977), pp. 74-79.
- Lodal, Jan. "SALT II and American Security." Foreign Affairs 57 (Winter 1978-1979), pp. 245-68.
- \_\_\_\_\_. "Verifying SALT." Foreign Policy 24 (Fall 1976), pp. 40-64.
- Lord, Carnes. "Verification and the Future of Arms Control." Strategic Review (Spring 1978), pp. 24-32.
- Luttwak, E. W. "Why Arms Control has Failed." Commentary 65 (January 1978): pp. 19-28.
- Marshall, Charles Burton. "Hide and Seek." The New Republic, November 24, 1962, pp. 14-17.
- Menges, Constantine C. "SALT II: Truth or Consequences." New Leader, September 25, 1978, pp. 6-8.
- Methvin, Eugene A. "Subversion as a Tool of Statecraft." Orbis 21 (Fall 1977), p. 510.
- Meyer, Stephen M. "Verification and the ICBM Shell Game." International Security 4 (Fall 1979), p. 50.

- Morgenthau, Hans. "Another Great Debate: The National Interest of the United States." American Political Science Review 46 (1952): pp. 961-975.
- Nacht, Michael. "A Strategic Symposium: SALT and U.S. Defense Policy." Washington Quarterly (Winter 1979), pp. 15-18.
- Nitze, Paul H. "Deterring Our Deterrent." Foreign Policy 25 (Winter 1976-77), pp. 97-118.
- Olson, Walter, and Mann, Fred. "Soviet Violations of SALT I." ACU Education and Research Institute, November 16, 1979.
- Perle, Richard. "Echoes of the 1930's." Strategic Review 7 (Winter 1979): pp. 11-25.
- Picard, Louis A. "The SALT I Negotiations: A Game Theory Paradigm." Policy Studies Journal (Autumn 1979), pp. 120-27.
- Potter, William C. "Coping with MIRV in a MAD World." Journal of Conflict Resolution (December 1978), pp. 596-626.
- Richelson, Jeffrey T. "Multiple Aim Point Basing: Vulnerability and Verification Problems." Journal of Conflict Resolution (December 1979), pp. 613-28.
- Rostow, Eugene V. "The Case Against SALT II." Commentary, 67, (February 1979), p. 29.
- \_\_\_\_\_. "The Safety of the Republic." Strategic Review 4 (Spring 1976): pp. 12-25.
- \_\_\_\_\_. "United States Objectives in Arms Control Negotiations with the Soviet Union." Council on Foreign Relations, New York, October 20, 1981.
- "SALT Verification and Iran." Arms Control Today 9 (February): pp. 1-8.
- Slocombe, Walter. "A SALT Debate: Hard but Fair Bargaining." Strategic Review 7 (Fall 1979): pp. 22-28.

- Snow, Donald M. "Strategic Uncertainty and Nuclear Deterrence." Naval War College Review (November-December 1981), pp. 27-41.
- Solzhenitsyn, Alexander. "Misconceptions About Russia Are a Threat to America." Foreign Affairs 58 (Spring 1980): pp. 797-834.
- Spurr, Russell. "Enter the Super Spooks." Far Eastern Economic Review, February 25, 1977, pp. 24-25.
- Sullivan, David S. "Arms Control and U.S. Foreign Policy, Fatal Flaws of Salt II." Washington, D.C.: Foreign Affairs Council, November 1980, pp. 14-15.
- \_\_\_\_\_. "The Legacy of SALT I: Soviet Deception and U.S. Retreat." Strategic Review 7 (Winter 1979): pp. 26-41.
- \_\_\_\_\_. "Lessons Learned From SALT I and II: New Objectives for SALT III." International Security Review 6 (Fall 1981): pp. 355-86.
- \_\_\_\_\_. "A SALT Debate: Continued Soviet Deception." Strategic Review 7 (Fall 1979): pp. 29-38.
- \_\_\_\_\_. "Soviet SALT Deception." Washington, D.C.: The Coalition for Peace Through Strength, 1979.
- Talbott, Strobe. "Scrambling and Spying in SALT II." International Security 4 (Fall 1979), pp. 3-21.
- \_\_\_\_\_. "U.S.-Soviet Relations: From Bad to Worse." Foreign Affairs 38 (Special Edition: America and the World, 1979): pp. 515-39.
- "USAF Explores Use of Early Mosaic Sensor." Electronic Warfare/Defense Electronics 9 (November-December 1976): p. 93.
- Van Cleave, William R. "SALT on the Eagle's Tail." Strategic Review (Spring 1976), pp. 45-55.
- Vernon, Graham D. "Controlled Conflict: Soviet Perceptions of Peaceful Coexistence." Orbis 23 (Summer 1979): pp. 271-97.

Walske, Carl. "Proliferation and Electrical Power." International Security 1 (Winter 1977), pp. 94-106.

Wessell, Nils H. "Changing Soviet-American Relations." Current History (October 1979), p. 97.

Wohlstetter, Albert. "Is There a Strategic Arms Race?" Foreign Policy, 19 (Summer 1975), pp. 163-77.

\_\_\_\_\_. "Rivals but no Race." Foreign Policy 16 (Fall 1974), pp. 48-81.

Government Documents, Studies, and  
Technical Reports

Arms Control. U.S. Arms Control and Disarmament Agency. Publication 82, July 1975.

Arms Control and Disarmament Agreements: Texts and  
Histories of Negotiations. Washington: ACDA, 1980.

Becker, Abraham S. "International Limitation of Military Expenditure: Issues and Problems." A report prepared for the Arms Control and Disarmament Agency. Santa Monica: The Rand Corporation, April 1976.

\_\_\_\_\_. "Prospects for Agreement to Limit Soviet and American Military Expenditure." Santa Monica: The Rand Corporation, July 1977.

\_\_\_\_\_. "Review of Franklin D. Holtzman, Financial Checks on Soviet Defense Expenditures." Santa Monica: The Rand Corporation, April 1976.

\_\_\_\_\_. "Strategic Breakout as a Soviet Policy Option." A report for ACDA. Santa Monica: The Rand Corporation, March 1977.

Brown, Harold. Department of Defense Annual Report, Fiscal Year 1979. February 1978.

\_\_\_\_\_. "SALT II and the National Defense." Department of State Bureau of Public Affairs. SALT II: Two Views, Current Policy No. 62, April 1979, pp. 6-11.

Brzezinski, Zbigniew. "SALT II and National Security." Department of State Bureau of Public Affairs. SALT II: Two Views, Current Policy No. 62, April 1979, pp. 3-5.

Carter, Jimmy. "President Carter Reports to the Congress on the SALT II Treaty." Address before a joint session of the Congress on June 18, 1979. U.S. Department of State Bulletin, Vol. 79, No. 2028 (July 1979), pp. 1-3.

Cohen, S. T. "The Case Against Not Having a Comprehensive Test Ban Treaty." Santa Monica: The Rand Corporation, November 1973.

\_\_\_\_\_. "Moving in SALT Outside of SALT." Santa Monica: The Rand Corporation, September 1973.

"Compliance with the SALT I Agreements." Department of State Bulletin, Vol. 78, No. 2013 (April 1978), pp. 10-14.

Dahlman, O., and Israelson, H. Internal Seismological Stations for Monitoring a Comprehensive Test Ban Treaty. Washington: NASA, June 1980.

Davies, Merton E. Inspection by Small Satellites. Santa Monica: The Rand Corporation, October 1966.

Estimated Soviet Defense Expenditures, 1978-1985. CIA unclassified report, June 1978.

Hoeber, Francis P. "SALT I: The Morning After." Santa Monica: The Rand Corporation, July 1972.

Ikle, Fred C. "Alternative Approaches to the International Organization of Disarmament." A report prepared for the Advanced Research Projects Agency. Santa Monica: The Rand Corporation, February 1962.

Karch, Lawrence G. "Off-Site Monitoring of Nuclear Fuel Reprocessing Plants for Nuclear Weapons Proliferation." Masters thesis, AFIT, Wright-Patterson AFB, OH, 1980.

Katz, Amrom H. "Observation Satellites: Problems, Possibilities, and Prospects." Santa Monica: The Rand Corporation, May 25, 1959.

Kemp, Jack F. "The SS-19 and the New Soviet ICBMs vis-a-vis SALT II." Congressional Record, August 2, 1979, p. E4076.

Lambeth, Benjamin S. "Soviet Strategic Conduct and the Prospects for Stability." A Project Air Force Report. Santa Monica: The Rand Corporation, December 1980.

Latter, Albert L. "Concealment of Underground Explosions." Prepared under contract with U.S. Atomic Energy Commission. Santa Monica: The Rand Corporation, March 16, 1960.

Laug, Owen B., and Yee, Kenneth W. Tamper-Resistant Television Surveillance System. Washington: ACDA, 1975.

Lipson, Leon, and Katzenbach, Nicholas, Project Reporters. Report to the National Aeronautics and Space Administration on the Law of Outer Space. Chicago: American Bar Foundation, 1961.

Marshall, A. W. "Problems of Estimating Military Power." Santa Monica: The Rand Corporation, August 1977.

Perry, Robert. "The Faces of Verification: Strategic Arms Control for the 1980's." Santa Monica: The Rand Corporation, August 1977.

Progress and Problems in Seismic Verification Research. A Collection of Papers Presented to the United Nations Conference of the Committee on Disarmament at Geneva in the Years 1971, 1972, 1973. Arlington: DARPA, 1973.

SALT and American Security. U.S. Department of State, ACDA, November 1978.

"SALT I: Compliance; SALT II: Verification." Department of State, Selected Documents, No. 7, February 1978.

SALT II Agreement. U.S. Department of State Bureau of Public Affairs, Selected Documents, No. 12B, July 1979.

SALT II Testimony. Testimony on SALT II Before the Senate Committee on Foreign Relations, U.S. Department of State, Bureau of Public Affairs, Current Policy No. 72A. Statements by Secretary Vance, Secretary Brown, ACDA Director Seigenius, Ambassador Earle, and General Jones. July 9-11, 1979.

SALT Lexicon. U.S. Arms Control and Disarmament Agency, Publication No. 71, July 1975.

Schlesinger, James R. "Pieties, Arms Policy, and the Scientist--Politician." A review of Jerome Wiesner's Where Science and Politics Meet. Santa Monica: The Rand Corporation, May 1965.

\_\_\_\_\_. "Selected Papers on National Security, 1964-1968." Santa Monica: The Rand Corporation, September 1974.

Slocombe, Walter. "Learning from Experience: Verification Guidelines for SALT II." Arms Control Today (February 1976).

"The Soviet and Communist Bloc Defamation Campaign." Congressional Record (House), September 28, 1965, p. 25391.

Soviet Covert Action (The Foreign Office). Hearings before the Subcommittee on Oversight of the Permanent Senate Committee on Intelligence. Washington, D.C.: USGPO, 1980.

Soviet Treaty Violations: A 40-Year Record of Broken Promises. Department of Defense, Office of Armed Forces Information and Education, Fact Sheet No. 1-H, June 10, 1959.

U.S. Congress. Joint Committee on Atomic Energy. Hearings. Technical Aspects of Detection and Inspection Controls of a Nuclear Weapons Test Ban. 86th Cong., 2d Session, 1960. Parts 1 and 2.

U.S. Congress. Senate. Committee on Armed Services. Hearing. Military Implications of the Treaty on the Limitations of Anti-Ballistic Missile Systems and the Interim Agreement on Limitation of Strategic Offensive Arms. 92nd Cong., 2d Session, 1972.

U.S. Congress. Senate. Committee on Foreign Relations. Subcommittee on Disarmament. Attitudes of Soviet Leaders Toward Disarmament. Staff Study No. 8, 85th Cong., 1st Session, 1957.

U.S. Congress. Senate. Committee on Foreign Relations. Subcommittee on Disarmament. Control and Reductions of Armaments. S. Rept. 2501, 85th Cong., 2d Session, 1958.

U.S. Congress. Senate. Hearings Before the Committee on Foreign Relations. Nuclear Test Ban Treaty. 88th Cong., 1st Session, 1963.

U.S. Congress. Senate. Soviet Compliance with Certain Provisions of the 1972 SALT I Agreements. Hearings Before the Subcommittee on Arms Control, Committee on Armed Services, 94th Cong., 1st Session, March 6, 1975.

U.S. Congress. Senate. Strategic Arms Limitations and Comprehensive Test Ban Negotiations. Hearings Before the Committee on Foreign Relations, 95th Cong., 2d Session, 1978.

Vance, Cyrus R., Secretary of State. Testimony Before the Senate Committee on Foreign Relations, July 9, 1979.

Van Cleave, William R. "Dr. Van Cleave on SALT II." Testimony Before the Senate Committee on Armed Services. Congressional Record--Senate, October 29, 1979, pp. 515339-515347.

Verification: The Critical Element of Arms Control.  
U.S. Arms Control and Disarmament Agency.  
Washington, D.C.: ACDA, Publication No. 85,  
March 1976.

"Verification of the Proposed SALT II Agreement."  
Department of State Bulletin, Vol. 78, No. 2013  
(April 1978), pp. 15-16.

Verification Requirements for Restrictions on Strategic Nuclear Delivery Vehicles. The Bendix Corporation. Report prepared for the U.S. Arms Control and Disarmament Agency, No. ACDA/ST-6, 28 July 1962.

Warnke, Paul C. "SALT: An Ongoing Process."  
Department of State Bulletin, Vol 78, No. 2013  
(April 1978), pp. 1-9.

Zoppo, Ciro E. "Technical and Political Aspects of Arms  
Control Negotiations: The 1958 Experts'  
Conference." A report prepared for ARPA. Santa  
Monica: The Rand Corporation, September 1962.

#### Periodicals

"Administration's Verification Claims Hit." Aviation  
Week and Space Technology, April 16, 1979, p. 16.

"Advances in Missile Surveillance Pushed." Aviation  
Week and Space Technology, July 12, 1976, p. 17.

"Aircraft Detection System Advances." Aviation Week  
and Space Technology, June 20, 1977, p. 23.

Alsop, Stewart. "How Safe is SALT?" Newsweek, June 5,  
1972, p. 112.

"Another Violation Spotted." Aviation Week and Space  
Technology, May 31, 1976, pp. 12-14.

"Anti-Satellite Laser Use Suspected." Aviation Week and  
Space Technology, December 8, 1975, p. 12.

"Blackbirds Over Cuba." Time, October 22, 1979, p. 46.

Burnham, O. J. "SALT Verifiability." National Review,  
January 1, 1978, p. 22.

Caldwell, Dan. "CTB: An Effective SALT Substitute."  
Bulletin of the Atomic Scientists (December  
1980), p. 50.

"Can Russia Be Trusted? Interview with J. R.  
Schlesinger." U.S. News & World Report, May 13,  
1974, pp. 38-40.

"Carter Avers Arms Treaty Can Be Verified." Aviation  
Week and Space Technology, May 7, 1979, p. 20.

"Carter Confirms Recon Satellite Deployment." Aviation  
Week and Space Technology, October 9, 1978, p. 22.

- "Carter Details SALT Verification Views." Aviation Week and Space Technology, April 30, 1979, p. 29.
- Cohen, S. T., and Van Cleave, W. R. "The Nuclear Test Ban: A Dangerous Anachronism." National Review, July 8, 1977, pp. 770-75.
- Coleman, Herbert J. "Space Recon Expansion Urged." Aviation Week and Space Technology, November 20, 1978, pp. 57-58.
- Feld, Bernhard T. "Plain Talk about Nuclear Proliferation." Bulletin of the Atomic Scientists (January 1979), pp. 4-6.
- "Former CIA Officer Arrested in Secret Satellite Manual Sale; Case of K. P. Kampiles." Aviation Week and Space Technology, August 28, 1978, p. 22.
- "Good for Everyone (Norway Offers SALT Listening Posts)." Time, August 6, 1979, p. 56.
- Gray, Colin. "SALT I Aftermath: Have the Soviets Been Cheating?" Air Force Magazine, November 1975.
- "A Haig Cover-up? Soviets Violate SALT II." Human Events, April 17, 1982, p. 23.
- Hechinger, Fred M. "Keeping Track of the Enemy." New Republic, March 31, 1973, p. 12.
- Holtz, R. "SALT Violations Confirmed." Aviation Week and Space Technology, December 12, 1977. pp. 12-13.
- "How Satellites May Help Sell SALT." U.S. News & World Report, May 21, 1979, pp. 25-27.
- "Iranian Monitor Loss Minimized." Aviation Week and Space Technology, April 30, 1979, p. 30.
- Jensen, H., Graham, L. C., Porcello, L. J., and Leihn, E. N. "Side Looking Airborne Radar." Scientific American 237 (October 1977): pp. 84-95.
- "Joint Chiefs Call SALT 'Modest But Useful.'" Aviation Week and Space Technology, July 16, 1979, p. 25.
- "The Key SALT Issue." Newsweek, April 23, 1979, pp. 46-48.

- Klass, Phillip J. "Analyzer Pinpoints Radar Changes." Aviation Week and Space Technology, May 26, 1975, p. 51.
- \_\_\_\_\_. "Recon Satellite Assumes Dual Role." Aviation Week and Space Technology, August 30, 1975, p. 13.
- \_\_\_\_\_. "USAF Boosts Satellite Lifetimes." Aviation Week and Space Technology, July 7, 1975, p. 21.
- \_\_\_\_\_. "U.S. Monitoring Capability Impaired." Aviation Week and Space Technology, May 14, 1979, pp. 20-22.
- Laird, Melvin R. "Arms Control: The Russians are Cheating." Reader's Digest, December 1977, pp. 97-101.
- \_\_\_\_\_. "Is This Detente?" Reader's Digest, July 1975, pp. 54-57.
- Mann, Paul. "Television Proposed to Verify Treaties." Aviation Week and Space Technology, September 21, 1981, p. 21.
- Marsh, Alton K. "SALT Verification Fears Begin to Ease in Senate." Aviation Week and Space Technology, July 30, 1979, p. 18.
- Marshall, Eliot. "Senate Skeptical on SALT Verification." Science, July 27, 1979, p. 373.
- Menges, Constantine C. "SALT II: Truth or Consequences." New Leader, September 25, 1978, pp. 6-8.
- Moynihan, Daniel P. "Reflections (SALT)." The New Yorker, November 19, 1979, pp. 104-80.
- "'Now We're Ready' for Substantial Cuts." (Interview with Edward Rowny, Chief U.S. Strategic Arms Negotiator.) U.S. News & World Report, June 14, 1982, p. 2.
- Ott, James. "Espionage Trial Highlights CIA Problems." Aviation Week and Space Technology, November 27, 1978, pp. 21-23.

"Refugees from Reality." The Economist, October 25, 1952, p. 213.

Robinson, Clarence A., Jr. "Exploitation of SALT Ambiguities Cited." Aviation Week and Space Technology, December 15, 1975, pp. 17-20.

\_\_\_\_\_. "Further Violations of SALT Seen." Aviation Week and Space Technology, February 3, 1975, pp. 12-13.

\_\_\_\_\_. "SALT II Approval Hinges on MX." Aviation Week and Space Technology, May 14, 1979, pp. 14-16.

\_\_\_\_\_. "SALT Violation Queries Confirmed." Aviation Week and Space Technology, March 6, 1978, pp. 18-19.

\_\_\_\_\_. "Soviet SALT Violations Feared." Aviation Week and Space Technology, September 22, 1980, p. 14.

\_\_\_\_\_. "Soviet Submarines Violate Pact." Aviation Week and Space Technology, February 27, 1978, pp. 14-16.

\_\_\_\_\_. "Soviet Treaty Violations Detected." Aviation Week and Space Technology, October 21, 1975, pp. 14-15.

\_\_\_\_\_. "Soviets Push Telemetry Bypass." Aviation Week and Space Technology, April 16, 1979, pp. 14-16.

\_\_\_\_\_. "U.S. Seeks Meeting on SALT Violations." Aviation Week and Space Technology, November 25, 1974, pp. 18-19.

"Russia's Propaganda Machine." The Retired Officer, April 1981, pp. 12-21.

"SALT Abrogation Urged on Verifications Tampering." Aviation Week and Space Technology, July 23, 1979, p. 16.

Sanders, Sol W. "The Coming Debate Over Soviet Violations of SALT." Business Week, September 22, 1980, p. 56.

- "Schlesinger Hits Violations of SALT, Posture Trend, Interview with Schlesinger." Aviation Week and Space Technology, December 1, 1975, pp. 21-22.
- Schlesinger, James R. "A Testing Time for America." Fortune, February 1976, p. 74.
- Scott, Alexander. "Strategic Reconnaissance and the Verification of the SALT II Agreement." Armed Forces Journal (June 1979), pp. 30-31; 58.
- Scoville, H., Jr. "Reply with Rejoinder." New Republic, June 21, 1975, p. 32.
- Smith, W. Y. "Soviet Military: Status and Trends" (Excerpts from Remarks). Aviation Week and Space Technology, May 1978, pp. 108-09.
- "Some Pepper for SALT." Time, April 23, 1979, pp. 20-21.
- "Spies in the Sky (Fate of SALT II May be Verification)." Time, July 30, 1979, p. 30.
- Szulc, T. "Soviet Violations of SALT Deal: Have We Been Had?" New Republic, June 7, 1975, pp. 11-15.
- "Turkey Granted Military Aid." Aviation Week and Space Technology, May 28, 1979, p. 22.
- "Turkey--Out of the Night?" National Review, June 8, 1979, pp. 719-20.
- "USAF Tracking Radar Details Disclosed." Aviation Week and Space Technology, October 25, 1976, pp. 44-46.
- "U.S. Electronic Espionage; A Memoir: Interview with Former NSA Analyst." Ramparts, August 1972, pp. 35-50.
- "U.S. Moves to Upgrade Missile Warning." Aviation Week and Space Technology, December 2, 1974, p. 16.
- "U.S. Rejects British MLS Change." Aviation Week and Space Technology, August 1, 1977, p. 60.
- "U.S. Studying Advanced Space Capability Plans." Aviation Week and Space Technology, April 12, 1976, pp. 43-44.

Van Cleave, William R., and Weiss, S. "National Intelligence and the USSR." National Review, June 30, 1978, pp. 777-80.

"The Verification Issue Dogs the SALT II Talks." Business Week, October 16, 1978, p. 74.

"Verification Tautologies." National Review, October 26, 1979, p. 1347.

"Zumwalt Disputes Policy on SALT." Aviation Week and Space Technology, January 19, 1976, pp. 46-50.

#### Newspaper Articles

Abramson, Ruby. "Glenn Says He'll Vote With Anti-SALT Bloc." Los Angeles Times, November 11, 1979, Part I, p. 21.

\_\_\_\_\_. "More Confidence in SALT Monitoring Ability Cited." Los Angeles Times, October 8, 1979, Part I, p. 14.

\_\_\_\_\_. "SALT Verification Outlook Mixed, Senate Panel Says." Los Angeles Times, October 6, 1979, p. A-1.

Anderson, Jack. "How the U.S. Monitors Soviet Arms." Washington Post, September 15, 1979, p. A-12.

\_\_\_\_\_. "Soviet Subterfuge: A SALT Concern." Washington Post, May 22, 1979, p. A-10.

Bacon, Kenneth H. "Can SALT Be Policed?" Wall Street Journal, July 9, 1979, p. 4.

Bartley, Robert L. "SALT: A Bankrupt Process." Editorial. Wall Street Journal, June 18, 1979, p. 12.

Beecher, William. "Soviet Missiles Stir Concern." The Boston Globe, May 28, 1982, p. 19.

Biden, Joseph (Senator). "Letter to the Editor: Improbable Interference." Washington Post, September 14, 1979, p. A-16.

- Bradsher, Henry S. "Soviet ABM Setup Has Pentagon Concerned." Washington Star, February 16, 1977, p. 14.
- Branigin, William. "Chemical Warfare: Laotian Accounts Lend Support to U.S. Changes." Washington Post, April 18, 1982, p. 2.
- Burt, Richard. "Arms Treaty: How to Verify Moscow's Compliance." New York Times, March 21, 1979, p. A-8.
- \_\_\_\_\_. "Soviet Reported to Add to Load Missile Can Fire." New York Times, March 16, 1979, p. A-25.
- \_\_\_\_\_. "Soviets Said to Test New Cruise Missile with a Long Range." New York Times, February 1, 1979, p. 1.
- \_\_\_\_\_. "Technology is Essential to Arms Verification." New York Times, August 14, 1979, p. C-1.
- \_\_\_\_\_. "U.S. Report Says Soviet Attempts Deception on Its Nuclear Strength." New York Times, September 26, 1979, p. 4.
- "Bush: 'Major' Problems in Verifying SALT." Christian Science Monitor, January 29, 1979, p. 2.
- "But We Did Get to Know Each Other." Wall Street Journal, September 11, 1979, p. 4.
- Carroll, Eugene J., Jr. "A Freeze Can Be Verified." New York Times, June 3, 1982, p. 13.
- Carver, George A., Jr. "Common Sense and Yellow Rain--I." The Baltimore Sun, April 14, 1982, p. 18.
- \_\_\_\_\_. "Common Sense and Yellow Rain--II." The Baltimore Sun, April 16, 1982, p. 19.
- Chadwell, Paul A. "Alternative to U.S. Listening Posts in Turkey." New York Times, July 3, 1979, p. A-12.
- "Chemical Warfare." The Baltimore Sun, April 19, 1982, p. 18.

- Cockburn, Andrew. "Treat SS-16 Warnings Warily." New York Times, April 27, 1982, p. 12.
- Cooley, John K. "Carter Works to Beef Up U.S. Ability to Monitor SALT." Christian Science Monitor, June 18, 1979, p. 12.
- \_\_\_\_\_. "Turkish Upheaval Could Stymie U.S. Missile Watch: Listening Posts Would Verify SALT II Pact." Christian Science Monitor, October 17, 1979, p. 3.
- \_\_\_\_\_. "U.S.-Turkish Talks Put Monitoring Sites in Jeopardy: Military Holds Surveillance Key." Christian Science Monitor, May 1, 1979, p. 11.
- Corddry, Charles W. "U.S. Decides Soviet Couldn't Cheat Enough on SALT to Endanger National Security." The Baltimore Sun, February 25, 1978, p. 1.
- Daniloff, Nicholas. "How We Spy on the Russians and Monitor SALT." Washington Post, December 9, 1979, pp. 24-37.
- Davis, Warren F. "Nuclear Arms: Let's Keep Open the 'Window of Verifiability.'" Christian Science Monitor, December 9, 1981, p. 23.
- Druzhinin, Aleksander. "The Soviet View of SALT." Christian Science Monitor, June 14, 1979, p. 23.
- Durch, William J. "Arms Verification: How Much is Enough?" Christian Science Monitor, September 25, 1981, p. 23.
- Evans, Rowland, and Novak, Robert. "A Pattern of Selective Cheating." Washington Post, October 3, 1979, p. 18.
- Evans, Rowland, and Novak, Robert. "SALT Soviet Style." Washington Post, August 10, 1979, p. 17.
- Evans, Rowland, and Novak, Robert. "Soviet Freeze Warning." Washington Post, April 5, 1982, p. 19.
- Evans, Rowland, and Novak, Robert. "The SS-19 Loophole." Washington Post, July 23, 1979, p. 18.

Evans, Rowland, and Novak, Robert. "Verifying the Verification Report." Washington Post, October 7, 1979, p. 21.

Evans, Rowland, and Novak, Robert. "Violations of the Test Ban?" Washington Post, September 5, 1979, p. 22.

"Excerpts from Senate Panel's Majority and Minority Reports on Arms Treaty." New York Times, November 20, 1979, p. A-10.

"Expert (Amrom Katz) Discounts Missile Verification." Christian Science Monitor, April 4, 1979, p. 2.

Garn, Jake. "On Principles for Negotiating Meaningful Arms Control." The Washington Times, May 28, 1982, p. 9.

Gelb, Leslie H. "U.S.-Soviet Talks on Arms Pact Open: On-Site Inspection Not Raised, State Department Declares." New York Times, September 3, 1981, p. 1.

\_\_\_\_\_. "U.S. Tells Soviet Any Arms Pact Must Include On-Site Inspection." New York Times, September 2, 1981, p. 1.

Gwertzman, Bernard. "Brown Sees Pact to Curtail Arms Verifiable by '80." New York Times, April 18, 1979, p. A-1.

Hersh, S. M. "Submarines of U.S. Stage Spy Missions Inside Soviet Waters." New York Times, May 25, 1975, pp. 1, 42.

House, Karen Eliot. "Data Pointing to Chemical, Germ Warfare by Soviets Could Imperil U.S. Arms Talks." Wall Street Journal, March 23, 1982, p. 1.

Hunt, Norman E. "SALT II Controls Have to be Better Than None." Letter, August 1, 1979, p. A-22.

"In Washington" (Monitoring the Strategic Arms Limitation Treaty). Wall Street Journal, March 2, 1979, p. 1.

Kaiser, Robert G. "Despite Earlier American Complaints, Soviets Encoded Missile Test Signals." Washington Post, May 30, 1979, p. A-2.

- \_\_\_\_\_. "Soviet Rocket Test Raises SALT Issue." Washington Post, March 16, 1979, p. A-25.
- \_\_\_\_\_. "U.S. Discloses SALT Details, Says Soviet Compliance Can Be Verified." Washington Post, February 25, 1978, p. 10.
- \_\_\_\_\_. "Verification of SALT II: Art and Science." Washington Post, June 15, 1979, p. A-1.
- Kelly, Neil. "Battles in Kampuchea Yield Evidence on 'Yellow Rain.'" Christian Science Monitor, March 23, 1982, p. 24.
- Lawler, Philip F. "Who Will Stop the Yellow Rain?" Washington Post, April 17, 1982, p. 23.
- Lewis, Anthony. "The Savor of SALT." New York Times, May 21, 1979, p. A-19.
- Lindsey, Robert. "Soviet Spies Got Data on Satellites Intended for Monitoring Arms Pact." New York Times, April 29, 1979, p. 13.
- Lord, Carnes. "The Real Problem in 'Verifying' an Arms Treaty," Wall Street Journal, October 9, 1979, p. 20.
- Markham, James M. "U.S. Backs French Plan for Arms Talks." New York Times, February 18, 1981, p. 4.
- Mohr, Charles. "Harold Brown Seeks to Assure Senate on Pact Verification." New York Times, July 19, 1979, p. A-3.
- \_\_\_\_\_. "Panel in Senate Said to Question Verifying of Pact." New York Times, October 5, 1979, p. A-1.
- \_\_\_\_\_. "Senate Panel Issues Arms Pact Report, Urges Approval." New York Times, November 20, 1979, p. A-1.
- \_\_\_\_\_. "Senate Panel Reports Nuclear Treaty Helps in Monitoring of Arms." New York Times, October 6, 1979, p. 1.
- Piper, Hal. "Why Arms Control Negotiations May Never Work." The Baltimore Sun, July 5, 1981, p. 18.
- "A Rain of Terror in Asia." Time, April 5, 1982, p. 36.

"Report That Turkey Wants Soviet Approval of Reconnaissance Flights." Wall Street Journal, May 17, 1979, p. 1.

Rice, Anne. "To Verify SALT." (Letter). New York Times, April 23, 1979, p. A-20.

\_\_\_\_\_. "The Verification Question." Christian Science Monitor (Letter), March 29, 1979, p. 22.

St. John, Jeffrey. "Soviet Arms Violations Alleged." The Washington Times, June 7, 1982, p. 4.

Scoville, Herbert, Jr. "Ex-CIA Official Says Nuclear Weapons Freeze Could Be Verified." Los Angeles Times, April 11, 1982, p. 22.

Smith, Gerard C. "Wrestling with the Plowshare Problem." New York Times, January 16, 1976, p. 29.

Smith, Hedrick. "Arms Hurdle: Trust in Soviet: Skirmish on Verification Heralds Coming Debate." New York Times, April 20, 1979, p. A-6.

\_\_\_\_\_. "Turner Sees Delay on Monitoring Sites: Says Iran Bases Can't Be Replaced Until '84, Angering Senators." New York Times, April 17, 1979, p. A-1.

Smith, Terence. "President Declares He Expects Russians to Adhere to Pact: Asserts Treaty is Verifiable: Violation of Arms Accord, He Says at News Conference, Could Lead U.S. to Repudiate It." New York Times, May 1, 1979, p. A-1.

Sutherland, Daniel. "Are Soviets Violating SALT II Guidelines?" Christian Science Monitor, May 12, 1982, p. 16.

\_\_\_\_\_. "Kissinger Gives SALT Modest, Qualified Boost: And He Urges That U.S.S.R. Be Monitored Annually." Christian Science Monitor, August 1, 1979, p. 1.

"Soviet Truck Plant Linked to Military." New York Times, May 24, 1979, p. A-20.

Taubarn, Phillip. "U.S. Offers Report on Use of Toxins by Soviet Forces." New York Times, March 23, 1982, p. A-17.

Temko, Ned. "Moscow in Arms Control Shift Hints Willingness Over Weapons Verification." Christian Science Monitor, August 13, 1981, p. 1.

"Text of Senate Committee's Findings on Ability of U.S. to Monitor Nuclear Pact." New York Times, October 6, 1979, p. 7.

Tolchin, Martin. "Carter Asserts U.S. Is Able to Monitor Treaty with Soviet: Fears Alternative to Pact: President Says in New York that Rejecting Arms Accord Would Damage Nation's Image." New York Times, April 26, 1979, p. A-1.

Toth, Robert L. "World Forums to Hear of Soviet 'Chemical War.'" Los Angeles Times, March 20, 1982, Part I, p. 5.

Trewhitt, Henry. "Soviet Said to Deploy Long Range Missiles." The Baltimore Sun, April 6, 1982, p. 4.

\_\_\_\_\_. "Taking Treaty with Grain of SALT." The Baltimore Sun, May 27, 1979, p. K-1.

"Turks, U.S. Discuss Bases for Monitoring SALT." Christian Science Monitor, August 14, 1979, p. 2.

"U.S. Can Detect Any Serious Violations of SALT II, Brown Says." Wall Street Journal, July 19, 1979, p. 5.

"Verification." Wall Street Journal, May 20, 1982, p. 12.

Weintraub, Bernard. "Pentagon Aides Say Moscow Has Mobile Missiles Able to Reach U.S." New York Times, November 3, 1977, p. 3.

Will, George. "The Credibility of Kissinger." Washington Post, December 26, 1975, p. A-17.

Wilson, George C. "Missile Test Encoding Flap Renewed." Washington Post, January 13, 1978, p. A-10.

\_\_\_\_\_. "Nerve Gas Production Plan Opposed." Washington Post, March 23, 1982, p. A-18.

Zumwalt, Elmo R., Jr., and Bagley, Worth. "Soviets Cheat and We Turn Our Backs." Washington Star, August 10, 1975, p. 19.

**END**

**FILMED**

**1-84**

**DTIC**